DOCUMENT RESUME

ED 041 149 08 VT 011 428

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TITLE A Study of Nursing Occupations; Registered Nurse, Licensed Vocational/Practical Nurse, and Nursing Aide. Interim Report.
INSTITUTION California Univ., Los Angeles. Div. of Vocational Education.
SPONS AGENCY Office of Education (DHEW), Washington, D.C. Bureau of Research.
BUREAU NO BR-8-0627
PUB DATE Apr 70
GRANT OEG-0-8-080627-4672(085)
NOTE 127p.

EDRS PRICE EDRS Price MF-$0.50 HC-$6.45
DESCRIPTORS *Curriculum Development, Educational Needs, Educational Programs, *Health Occupations Education, *Nursing, Research Projects, Tables (Data), *Task Analysis
IDENTIFIERS UCLA Allied Health Professions Projects

ABSTRACT

To determine nursing tasks and make curriculum recommendations based on these tasks, a survey instrument of nursing tasks was developed by a project committee, validated by the National Technical Advisory Committee for Nursing, and administered to 450 nursing personnel representing 48 hospitals and extended care facilities. An 88 percent response yielded these results and suggestions: (1) All categories of nursing personnel performed 60 percent of the tasks, (2) The setting of the agency appears to be a factor in the utilization of the lower skilled worker (Nursing Aide) in more critical nursing tasks, (3) Routine safety and comfort measures as well as nutrition and elimination tasks are performed more frequently by Nursing Aides and Licensed Vocational/Practical Nurses, which implies that the basic instructional unit should be concentrated in these areas, and (4) Administrative tasks are done most frequently by Registered Nurses which suggests that this content should be in the more advanced nursing education sequence. Additional background information is available in ED 037 570 and other allied professions projects are VT 011 425-VT 011 432 in this issue. (SB)

ED041149

Interim Report

A STUDY OF NURSING OCCUPATIONS

Registered Nurse
Licensed Vocational/Practical Nurse
Nursing Aide

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Research and Demonstration Grant 8-0627
U. S. Office of Education, Bureau of Research
Department of Health, Education, and Welfare

University of California, Los Angeles
Division of Vocational Education
ALLIED HEALTH PROFESSIONS PROJECTS

April 1970

This publication was prepared pursuant to Contract No. OEG-0-8-080627-4672(085) with the Office of Education, U. S. Department of Health, Education, and Welfare. Points of view or opinions were developed on the basis of advisory committee suggestions and survey data. They do not, therefore, necessarily represent official Office of Education position or policy.

UNIVERSITY OF CALIFORNIA, LOS ANGELES
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ALLIED HEALTH PROFESSIONS PROJECTS
Research and Development Project for Curricula
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FOREWORD

The Division of Vocational Education, University of California, is an administrative unit of the University concerned with responsibilities for research, teacher education, and public service in the broad area of vocational and technical education. During 1968 the Division entered into an agreement with the U. S. Office of Education to prepare curricula and instructional materials for a variety of allied health areas. For the most part such materials are related to pre-service and in-service instruction in programs from on-the-job instruction through Associate degree programs.

This interim report is a summary of the functional analysis for the occupational area of Nursing in health care facilities. A National Technical Advisory Committee for the Nursing Occupations provided assistance in designing the questionnaire used to identify tasks performed by nursing personnel in health care facilities throughout the nation.

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C O N T E N T S

		Page
FOREWORD		iii
SUMMARY		
I.	INTRODUCTION	1
II.	PROCEDURES	3
	Task Identification	3
	Aims and Limitations of the Survey Instrument	4
	Other Data	5
	Selection of Respondents	6
	Characteristics of Respondents	9
III.	DATA ANALYSIS	15
	Objectives of the Interim Report	15
	Data Presentation	16
IV.	DATA ANALYSIS BY FUNCTIONAL AREA	19
	A. Diversional Therapeutic and Assistance Activities	19
	B. Safety and Comfort	22
	1. Patient Protection	22
	2. Personal Hygiene and General Comfort	27
	3. Religious and Spiritual Care	32
	4. Patient Need for Movement	34
	C. Nutrition and Elimination	41
	1. Patient Need for Food and Fluids	41
	2. Patient Need for Elimination	46
	3. Patient Need for Oxygen Transport and Exchange	46
	D. Treatments, Procedures, Medications, and Diagnostic Activities	53
	1. Treatments and Procedures	53
	2. Application of Heat, Cold, Medicated Therapeutic Agents	59
	3. Medications	62
	4. Diagnostic Activities	65
	E. Observation and Communication	71
	1. Observation, Analysis, Interpretation	71
	2. Oral and Written Communication	76

Contents (continued)

	Page
F. Administration, Coordination, Housekeeping	87
1. Administration and Coordination	87
2. Housekeeping Functions	94
V. CONCLUDING REMARKS	99
A. Non-nursing Functions	101
B. The Nurses' Aide	101
C. Differentiation of Nursing Functions Appropriate to all Personnel	102
D. The Frequency Criterion	102
E. The Relationship of Frequency, Criticality, and Differentiation	104
F. Background and Structural Variables	105
G. Other Dimensions of Analysis	106

APPENDICES

A. Roster of National Technical Advisory Committee for the Nursing Occupations	107
B. List of Health Care Facilities Selected for National Survey	109
C. Task Inventory Survey Instrument, including instructions to respondents and "personal information" questionnaire	111

LIST OF TABLES

1. NUMBER OF QUESTIONNAIRES DISTRIBUTED AND NUMBER AND PERCENT RESPONSE RECEIVED, BY GEOGRAPHIC AREA	7
2. RESPONSE BY CATEGORY OF NURSING PERSONNEL AND GEOGRAPHIC AREA	9
3. DESCRIPTION OF RESPONDENTS BY POSITION TITLE AND BY TYPE AND SIZE OF HOSPITAL AND AREA OF PATIENT CARE	10
4. DESCRIPTION OF RESPONDENTS BY POSITION TITLE, AGE, SEX, MARITAL STATUS, INCOME, EDUCATION, AND EXPERIENCE	12

List of Tables (continued) Page

SERIES OF TABLES PRESENTING APPROPRIATE LEVEL, FREQUENCY OF TASK PERFORMANCE BY CATEGORY OF PERSONNEL, PERCENTAGE DIFFERENCE IN FREQUENCY OF TASK PERFORMANCE BETWEEN CATEGORIES OF PERSONNEL, AND CRITICALITY, WITHIN THE FUNCTIONAL AREAS SPECIFIED:

5. DIVERSIONAL THERAPEUTIC AND ASSISTANCE ACTIVITIES 20

6. SAFETY AND COMFORT. B-1. Patient Protection 23

6-A. SAFETY AND COMFORT. B-1. Patient Protection (sub-tasks) . . . 26

7. SAFETY AND COMFORT. B-2. Personal Hygiene and General Comfort 28

7-A. SAFETY AND COMFORT. B-2. Personal Hygiene and General Comfort (sub-tasks) 31

8. SAFETY AND COMFORT. B-3. Religious and Spiritual Care 33

9. SAFETY AND COMFORT. B-4. Patient Need for Movement 35

9-A. SAFETY AND COMFORT. B-4. Patient Need for Movement (sub-tasks) 38

10. NUTRITION AND ELIMINATION. C-1. Patient Need for Food and Fluids 40

10-A. NUTRITION AND ELIMINATION. C-1. Patient Need for Food and Fluids (sub-tasks) 42

11. NUTRITION AND ELIMINATION. C-2. Patient Need for Elimination . 45

11-A. NUTRITION AND ELIMINATION. C-2. Patient Need for Elimination . (sub-tasks) 47

12. NUTRITION AND ELIMINATION. C-3. Patient Need for Oxygen Transport and Exchange 49

12-A. NUTRITION AND ELIMINATION. C-3. Patient Need for Oxygen Transport and Exchange (sub-tasks) 51

13. TREATMENTS, PROCEDURES, MEDICATIONS AND DIAGNOSTIC ACTIVITIES. . D-1. Treatments and Procedures 54

13-A. TREATMENTS, PROCEDURES, MEDICATIONS AND DIAGNOSTIC ACTIVITIES. . D-1. Treatments and Procedures (sub-tasks) 57

14. TREATMENTS, PROCEDURES, MEDICATIONS AND DIAGNOSTIC ACTIVITIES. . D-2. Application of Heat, Cold, Medicated Therapeutic Agents. . 60

14-A. TREATMENTS, PROCEDURES, MEDICATIONS AND DIAGNOSTIC ACTIVITIES. . D-2. Application of Heat, Cold, Medicated Therapeutic Agents... (sub-tasks) 61

15. TREATMENTS, PROCEDURES, MEDICATIONS AND DIAGNOSTIC ACTIVITIES. . D-3. Medications 63

List of Tables (continued) Page

15-A. TREATMENTS, PROCEDURES, MEDICATIONS AND DIAGNOSTIC ACTIVITIES. . D-3. Medications (sub-tasks) 64

16. TREATMENTS, PROCEDURES, MEDICATIONS AND DIAGNOSTIC ACTIVITIES. . D-4. Diagnostic Activities 66

16-A. TREATMENTS, PROCEDURES, MEDICATIONS AND DIAGNOSTIC ACTIVITIES. . D-4. Diagnostic Activities (sub-tasks) 69

17. OBSERVATION AND COMMUNICATION. E-1. Observation, Analysis, . . Interpretation 72

17-A. OBSERVATION AND COMMUNICATION. E-1. Observation, Analysis, . . Interpretation (sub-tasks) 75

18. OBSERVATION AND COMMUNICATION. E-2. Oral and Written Communication 77

18-A. OBSERVATION AND COMMUNICATION. E-2. Oral and Written Communication (sub-tasks) 82

19. ADMINISTRATION, COORDINATION, HOUSEKEEPING. F-1. Administration and Coordination 88

19-A. ADMINISTRATION, COORDINATION, HOUSEKEEPING. F-1. Administration and Coordination (sub-tasks) 92

20. ADMINISTRATION, COORDINATION, HOUSEKEEPING. F-2. Housekeeping Functions 95

20-A. ADMINISTRATION, COORDINATION, HOUSEKEEPING. F-2. Housekeeping Functions (sub-tasks) 98

21. RANGE OF FREQUENCY OF PERFORMANCE AND RANGE OF CRITICALITY SCORES . . RANK-ORDERED BY NURSING AREAS 99

22. FREQUENCY OF MID-MOST TASK AND MEDIAN CRITICALITY SCORE RANK-ORDERED BY NURSING AREA 100

S U M M A R Y

Objectives:

1. To compile a comprehensive inventory of tasks which make up the nursing functions in health facilities.

2. To ascertain which category of worker performs the individual nursing task.

3. On the basis of these data, to make recommendations on curriculum for nursing personnel.

Procedure:

1. Establishment of a national advisory committee of nursing educators to assist in guiding and validating the development of the survey instrument.

2. Development of a comprehensive nursing task list.

3. Conduct surveying nursing activities in a nation-wide group of health care facilities.

4. Evaluation of the data as a basis for future curriculum development.

Results and Suggestions:

1. Sixty percent of the designated tasks are done by all categories of workers; NA/LVN(LPN)/RN. These could provide the basic curriculum for nursing. Eleven percent of the tasks were identified as non-nursing. In reality, these tasks usually are done by all personnel. These tasks need further investigation to determine whether they should be incorporated into the nursing curriculum or be part of the orientation program in each agency.

2. The designation by the National Technical Advisory Committee of tasks to a specific category of worker was found to be at variance with practice in several areas. Some of the lower skilled workers (NA's) are in fact carrying out specialized tasks, i.e., "suction patient's trachea". Further study is needed to determine if these tasks can be safely performed by the less skilled worker.

3. The setting of the agency, i.e., extended care facility or small hospital, appears to be a factor in the utilization of the lower skilled worker (NA) in the more critical nursing tasks.

Results and Suggestions, Con'd.

4. The routine safety and comfort measures and the nutrition and elimination tasks seem to be performed most frequently by the NA/LVN(LPN). Based on this information, it would appear that the basic nursing instructional unit should be concentrated in the above areas.

5. The administrative tasks such as planning, directing, and evaluation of nursing care, on the basis of the survey data, are done most frequently by the Registered Nurse. It would appear to be more efficient to place this content in the more advanced nursing educational sequence in the Registered Nurse program.

6. By grouping tasks into specific functional areas, it should be possible to develop a progression of skills and knowledge which will meet stated performance levels and allow for horizontal and vertical mobility within the health occupations.

7. Suggestions for further study are included.

Interim Report

NURSING FUNCTIONS

I. INTRODUCTION

Early in 1968, the U. S. Office of Education initiated proposals for research and development programs to stimulate the recruitment and training of manpower for the allied health occupations. A proposal submitted by the Division of Vocational Education, University of California, Los Angeles, was approved and funded for a four-year period under the provisions of the Vocational Education Act of 1963. Designated as the Allied Health Professsions Projects (AHPP), the program began operations in August 1968.

Objectives of the program are to develop pre-service and in-service curricula and educational materials for some 18 of the allied health occupations at levels ranging from on-the-job training up to the junior college Associate degree level, to provide a means of updating curricula as required by occupational changes, and to disseminate the curricula and instructional materials nationwide through establishment of appropriate delivery systems.

To implement these objectives, the Allied Health Professions Projects undertook to identify by job or task analysis the items to be included in the curriculum for each of the selected occupations, to formulate student performance goals for each, and to determine standards for required skills and knowledge for each occupation, such occupations to be selected on the basis of national and local need. In conjunction with task analysis, a National Advisory Committee and Occupational Advisory Committee of distinguished specialists were constituted to assist in establishing policy and guiding activities of the overall program and the specific occupational projects.

Nursing occupations were identified as one of the major occupational clusters in the Allied Health Professions Projects. The National Technical Advisory Committee for Nursing (see Appendix A), meeting in December 1968, designated the Registered Nurse, Licensed Practical/Vocational Nurse, Operating Room Technician, Obstetrics Technician, Psychiatric Aide, Nurses' Aide, and Orderly as the important occupational groups within this cluster.

In keeping with the objectives of the Project, a task analysis of the nursing occupations was undertaken. The Project Staff, in light of the recommendations of the National Technical Advisory Committee for Nursing, developed a survey instrument for the analysis of the three highest-priority occupations--the Registered Nurse, Licensed Practical/Vocational Nurse, and Nurses' Aide. The analysis was designed to be applicable to personnel in all nursing areas, i.e., medical-surgical, obstetrics, pediatrics, and psychiatry. What follows is a brief discussion of the survey instrument and the kind of information it provides in relation to other data sources to be employed in the task analysis of the nursing occupations.

II. PROCEDURES

Task Identification

Tasks were identified by the Associate Project Director through observation of the activities of relevant personnel, review of literature, her own occupational experience, and discussion with nursing personnel and educators. Tasks performed by all levels of nursing personnel were included. Certain functions were broken down into sub-tasks. For example, "Open sterile packages and packs," "Pour sterile solutions," etc., were specified as sub-tasks of the more comprehensive task, "Carrying out aseptic techniques."

Following identification, the tasks were grouped into functional areas. It must be acknowledged that within each of these areas there were tasks identified which were not nursing functions; they were included because they were performed by nursing personnel. The functional areas, with examples of the kinds of tasks comprising them, are:

A. Diversional Therapeutic and Assistance Activities: "Assist with individual and group therapy."

B. Safety and Comfort: Personal Hygiene and General Comfort: "Give or assist patient with oral hygiene."

C. Nutrition and Elimination: "Assist patient to eat," i.e., prepare food so that patient may assist himself.

D. Treatments, Procedures, Medications, and Diagnostic Activities: Treatments and Procedures: "Insert urinary catheters."

E. Observation and Communication: Observation, Analysis, Interpretation: "Observe patient's general appearance."

F. Administration, Coordination, Housekeeping: Administration and Coordination: Direct personnel and activities of nursing team: "Assign patients to team members."

These six functional areas relate directly to the six occupational activity categories established for the Task Analysis (Appendix C). For purposes of detailed analysis, the six major functional areas have been further subdivided into a total of 16 nursing areas, under the rubrics established by the six functional areas. For convenience in referring to the survey instrument, all three types of grouping have been related, as follows:

Functional Area A--Survey Category I, "Diversional Therapeutic and Assistance Activities"

1. Receive and Deliver Messages and/or Mail to Patients.

Functional Area B--Survey Category II, "Personal Hygiene and General Comfort"

1. Patient Protection

2. Personal Hygiene and General Comfort

3. Religious and Spiritual Care

4. Patient Need for Movement

Functional Area C--Survey Category III, "Nutrition and Elimination"

1. Patient Need for Food and Fluids

2. Patient Need for Elimination

3. Patient Need for Oxygen Transport and Exchange

Functional Area D--Survey Category IV, "Treatments, Procedures, Medications and Diagnostic Activities"

1. Treatments and Procedures

2. Application of Heat, Cold, etc.

3. Medication

4. Diagnostic Activities

Functional Area E--Survey Category V, "Observation and Communication"

1. Observation, Analysis, Interpretation

2. Oral and Written Communication

Functional Area F--Survey Category VI, "Administration, Coordination, Housekeeping"

1. Administration and Coordination

2. Housekeeping Functions

In all, 317 tasks and sub-tasks were specified.

Aims and Limitations of the Survey Instrument

It was believed that a survey using a behaviorally specified task inventory would be of definite value in determining the specific skills to be covered in the development of pre-service and in-service curricula. The survey is specifically directed to the following questions:

(1) the frequency with which the task is performed;

(2) the degree of supervision associated with the performance of a particular task;

(3) the level of (perceived) difficulty of the task.

It was assumed that the employee could most accurately identify the frequency with which he performed a task and the amount of supervision he received. The assessment by personnel of the difficulty of tasks in terms of the numbers of procedures and kinds of decisions involved in them was thought to be a source of useful information for determining the problems involved in learning how to perform them competently. A sample page of the survey instrument along with covering informational material appears in Appendix C. Survey questions are given in toto in the tables which accompany the text.

The results of the task survey by themselves do not provide the range of information required for adequate task analysis. The development of effective and relevant curricula demands a careful and critical assessment of a number of dimensions relevant to task performance, not all of them obtainable through questions directed to personnel. For example, the dimension of "difficulty" has both a subjective and an objective component, the former being tapped by the responses of personnel to the task survey discussed briefly above. To get at the objective component requires expert analysis and evaluation of the task and its component procedures.

Other Data

In addition to the responses of personnel to the task survey, members of the Technical Advisory Committee were asked to make expert judgments concerning dimensions of task performance deemed relevant to the building of innovative training programs. These dimensions are as follows:

1. Human Interaction. This scale is intended to assess the level of human interaction skills by which the performer deals with the recipients of the service rendered or the response of the latter to the service of the performer.

2. Criticality. This scale is intended to assess the level of tolerance which can be allowed in the performance of each task without a significant loss of time, materials, equipment, patient comfort or safety.

3. Psychomotor Coordination. This scale is intended to evaluate the difficulty of each task in terms of the level of manual skill required to perform the task well.

4. Cognitive Level. This scale is designed to evaluate the depth of knowledge (in terms of the number of procedures and quality of decision making) required to perform a task well.

5. Appropriateness. Not a scale, but a qualitative judgment concerning the appropriateness of a particular task as a nursing function, and within nursing, the level of competence required to perform it.

A description of these scales and the procedure for their application by the Technical Advisory Committee will be found in Appendix C.

In addition to the information supplied by the Advisory Committee, background data are available on individual respondents and the structural characteristics of the institutions that employ them. In terms of background, respondents were asked to indicate such facts as age, sex, education, experience, and income. The pertinent structural characteristics of the hospitals from which respondents were drawn are region (i.e., Los Angeles, Chicago, Seattle, Denver, Birmingham and Boston), size (i.e., number of beds), and type (i.e., acute voluntary, proprietary, and nursing home, attached, unattached). In addition, the medical area (i.e., medical-surgical, obstetrics, pediatrics and psychiatry) is also indicated. (See Appendix B. C.)

Such information is potentially useful in defining variations in needs for training (e.g., different requirements arising from type of facility, regional variations, different levels of experience, etc.). It should be noted, however, that the basic task is to establish general guidelines for the development of curricula based on the needs of nursing occupations nationwide. Background and structural variables such as those mentioned above will play their part in subsequent refinements of the nationwide task analysis directed to arriving at such general guidelines.

Selection of Respondents

Since the curricula and instructional materials developed were to have national applicability, respondents to the task analysis survey were selected in a way which would reflect a generalized pattern of medical and nursing care for the country as a whole. A panel of 48 hospitals was developed from which respondents were to be selected for all or most of the task analyses to be performed in the Allied Health Professions Projects (AHPP).

Selection of Hospitals--To facilitate the collection of data for all surveys, hospitals were selected which lay within a 200-mile radius of six metropolitan areas--Chicago, Birmingham, Boston, Seattle, Denver, and Los Angeles. Within each selected area six hospitals (two small--less than 100 beds; two medium--100-199 beds; and two large--200 beds and over) and two Extended Care Facilities were selected randomly from the lists of facilities approved by Medicare.* The local hospital associations were then contacted and any hospital randomly selected which was known to be non-cooperative was replaced upon the advice of that hospital association. The hospitals making up the final group were, therefore, a selected group or judgment sample. (For list of cooperating hospitals, see Appendix B.)

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*Directory of Medicare Providers of Services, Hospitals, Title XVIII: Health Insurance for the Aged. U. S. Department of Health, Education and Welfare, Social Security Administration, October 1968; Directory of Medicare Providers of Services, Extended Care Facilities, Title XVIII: Health Insurance for the Aged. U. S. Department of Health, Education and Welfare, Social Security Administration, October 1968.

The hospitals included consisted mainly of voluntary non-profit facilities, although proprietary and government-sponsored facilities were included. Extended Care Facilities included both attached and unattached units--so designed to include multiple patterns of staffing and management.

Designation of Respondents--Each hospital was requested to provide a specified number of respondents which varied with the occupational group under study. In the Nursing survey, large hospitals were asked for 15 respondents, medium hospitals, for 12 respondents, and small hospitals and Extended Care Facilities, for nine respondents. Where possible, these were divided equally into the three categories of nursing area personnel involved, e.g., a large hospital would be asked for 15 respondents, of whom five would be RNs, five, LVN/LPNs, and five, Nurses' Aides. In addition, hospitals were asked to obtain respondents from varying areas of patient care--Medical-Surgical, Obstetrics, Pediatrics and Psychiatry. (See Appendix C, p. 111 for distribution of respondents requested.)

The surveys were distributed by personnel on the Projects staff in conjunction with the hospital administration. Completed survey forms were returned to the Projects staff member (not administration) and forwarded to UCLA for preparation for data processing. In some instances, respondents were given a return envelope and asked to return the survey form directly to UCLA.

A total of 450 questionnaires was distributed to nursing personnel.* Usable responses were received in time for processing from 398 respondents, a response rate of 88 percent (see Table 1). Several additional questionnaires received after the final cut-off date were not included in this analysis of the data.

Table 1. NUMBER OF QUESTIONNAIRES DISTRIBUTED AND NUMBER AND PERCENT RESPONSES RECEIVED, BY GEOGRAPHIC AREA

Number of Questionnaires	Geographic Area						
	Birmingham	Boston	Chicago	Denver	Los Angeles	Seattle	Total
Distributed	72	59	80	80	71	88	450
Returned	60	47	65	80	63	83	398
Percent returned	83	80	81	100	93	93	88

*According to the survey plan, a total of 540 questionnaires was to have been distributed (90 per geographic area). In every area, however, there were some hospitals that had insufficient nursing personnel available to meet the survey "quota," and a smaller number of questionnaires was distributed.

Table 2. RESPONSE BY CATEGORY OF NURSING PERSONNEL AND GEOGRAPHIC AREA

Nursing Personnel	Geographic Area													
	Birmingham		Boston		Chicago		Denver		Los Angeles		Seattle		Total	
	N=60	100%	N=47	100%	N=65	100%	N=80	100%	N=63	100%	N=83	100%	N=398	100%
Registered Nurse	22	36.6	15	31.9	23	35.4	28	35.0	21	33.3	28	33.7	137	34.4
Licensed Vocational Nurse	19	31.6	16	34.0	20	30.8	26	32.5	22	34.9	27	32.5	130	32.7
Nurses' Aide	19	31.6	16	34.0	22	33.8	26	32.5	20	31.8	28	33.7	131	32.9

An analysis was made of the respondents by category of nursing personnel and geographic area. It was demonstrated that although some geographic areas had fewer respondents than others, equal proportions of nursing personnel categories (RN, LVN/LPN and Aide) were obtained within each geographic area and for the group as a whole (see Table 2).

Characteristics of Respondents

As might be expected, the respondents reflected the characteristics of the hospitals and Extended Care Facilities selected and the patient care area coverage requested (Table 3). The largest proportion (78.1%) of respondents in all categories was employed in voluntary or community acute general hospitals. Proprietary acute general hospitals were represented by a small percentage of the respondents (6.3%) and the remainder (15.6%) were employed in Extended Care Facilities.

The distribution of respondents by hospital size and by area of patient care also proved to be as expected. Somewhat less than 50 percent of respondents was employed in larger hospitals--a percentage not unlike the distribution of hospital sizes in the country as a whole. The largest proportion of respondents in all categories was employed in the medical-surgical service of the hospitals. Very few respondents were obtained from psychiatric services. This was to be expected, since the hospitals selected were primarily acute general hospitals. (The figures for psychiatric service reflected roughly the ratio of psychiatric to general acute hospitals in the nation as a whole.)

It is of interest that a larger proportion of the Aide category respondents failed to specify an area of patient care. This might be construed to indicate that the Aide/Orderly category of personnel is less specialized than other categories (or assumed as needed), or it might mean that they are not as well informed regarding their work as the other categories.

Personal Characteristics. There were no remarkable findings noted in the general characteristics of the respondents (Table 4) . There were greater numbers of Registered Nurses in the 20-29 age group, more Aides in the youngest group (under 20), and more Aides and LVN/LPNs in the oldest age group (50 years and over). A larger proportion of males was noted in the Aide group, although 95 percent of all respondents were females. The income distribution was as expected, the larger percentage (54.7%) of RNs receiving $7-10,000 per year, the majority of LVN/LPNs (63.1%) falling in the $4-7,000 category, and most of the Aides (70.2%) earning less than $4,000 per year. There appears to be, however, a good deal of overlap downward in the salary ranges for the three categories of personnel. Only three (2.2%) of the RNs reported receiving $10,000 or more per year.

Education or training followed the pattern which might be expected for the country as a whole. The Aides received on-the-job training--usually of less than one year. The LVN/LPNs were trained primarily in one-year programs. Among the RNs, 83 percent were diploma school graduates. Only five (3.6%) were

Table 3.

DESCRIPTION OF RESPONDENTS BY POSITION TITLE
BY TYPE AND SIZE OF HOSPITAL AND AREA OF PATIENT CARE

Item	Position Title: RN N=137	RN 100%	LVN/LPN N=130	LVN/LPN 100%	Aide N=131	Aide 100%	Total N=398	Total 100%
Hospital Type								
Acute Voluntary and/or Community	110	80.3	104	80.3	97	74.0	311	78.1
Acute Proprietary	8	5.8	8	6.2	9	6.9	25	6.3
Extended Care Facility	19	13.9	18	13.5	25	19.1	62	15.6
Hospital Size								
Less than 100 beds	52	38.0	51	39.2	48	36.6	111	27.9
100 - 199 Beds	37	27.0	33	25.4	33	25.2	103	25.9
200 Beds and Over	29	21.2	28	21.5	25	19.1	82	20.6
Extended Care Facility	19	13.9	18	13.8	25	19.1	62	15.6
Area of Patient Care								
Medical-Surgical	104	75.9	94	72.3	94	71.8	292	73.4
Obstetrics	17	12.4	20	15.4	11	8.4	48	12.1
Pediatrics	10	7.3	9	6.9	8	6.1	27	6.8
Psychiatric	2	1.5	1	0.8	3	2.3	6	1.5
No Answer	4	2.9	6	4.6	15	11.5	25	6.2

Associate degree graduates and 15 (10.9%) were graduates of baccalaureate programs. In general, the respondents to this survey may be considered fairly typical of the general population of employees in the nursing fields.[1]

The respondent population appeared to be unusually stable (perhaps because an effort was made to include suburban and rural facilities as well as urban). An unexpectedly high proportion had been employed at their present facilities for more than two years.

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[1]See Facts about Nursing: A Statistical Summary. 1969 Edition. New York: National Nurses' Association, 1969, p.10.

Table 4.

DESCRIPTION OF RESPONDENTS BY POSITION TITLE
AGE, SEX, MARITAL STATUS, INCOME, EDUCATION, AND EXPERIENCE

Item	Position Title: RN N=137	RN 100%	LVN/LPN N=130	LVN/LPN 100%	Aide N=131	Aide 100%	Total N=398	Total 100%
Age								
Under 20	0	0.0	2	1.5	4	3.1	6	1.5
20 - 29	59	43.1	35	26.9	35	26.7	129	32.4
30 - 39	33	24.1	30	23.1	31	23.7	94	23.6
40 - 49	20	14.6	28	21.5	27	20.6	75	18.8
50 - 59	20	14.6	29	22.3	26	19.8	75	18.8
60 and Over	3	2.2	6	4.6	7	5.3	16	4.0
No Answer	2	1.5	0	0.0	1	0.8	3	0.8
Sex								
Male	2	1.5	5	3.8	12	9.2	19	4.8
Female	134	97.8	125	96.2	119	90.8	378	95.0
No Answer	1	0.7					1	0.2
Marital Status								
Married	85	62.0	78	60.0	84	64.1	247	62.1
Single	36	26.3	24	18.5	22	16.8	82	20.6
Divorced, Widowed Separated	14	10.2	28	21.6	25	19.1	67	16.8
No Answer	2	1.5					2	0.5

Table 4. (Continued)

DESCRIPTION OF RESPONDENTS BY POSITION TITLE
AGE, SEX, MARITAL STATUS, INCOME, EDUCATION, AND EXPERIENCE

Item	Position Title: RN N=137	RN 100%	LVN/LPN N=130	LVN/LPN 100%	Aide N=131	Aide 100%	Total N=398	Total 100%
Annual Income								
Less than $4,000	6	4.4	41	31.6	92	70.2	139	34.9
$4,000 - 5,999	49	35.8	82	63.1	35	26.7	166	41.7
$7,000 - 9,999	75	54.7	2	1.5	0	0.0	77	19.3
$10,000 and Over	3	2.2	0	0.0	0	0.0	3	0.8
No Answer	4	2.9	5	3.8	4	3.1	4	1.0
Highest Grade Before Entering Education or Training Program								
1 - 8 Years	0	0.0	3	2.3	7	5.3	10	2.5
8 - 11 Years	2	1.5	19	14.6	39	29.6	60	15.1
12 Years	94	68.6	84	64.6	57	43.5	235	59.0
Some College	26	19.0	20	15.4	27	20.6	73	18.3
Baccalaureate or More	14	10.2	1	0.8	-	-	15	3.8
No Answer	1	0.7	3	2.3	1	0.8	5	1.3
Training Program								
On-the-Job Training	1	0.7	19	14.6	96	73.3	116	29.1
Certificate or Diploma	114	83.2	100	76.9	21	16.0	235	59.0
AA	5	3.6	-	-	-	-	5	1.3
BA or More	15	10.9	1	0.8	-	-	16	4.0
No Answer	2	1.5	10	7.7	14	10.7	26	6.5

Table 4. (Continued)

DESCRIPTION OF RESPONDENTS BY POSITION TITLE
AGE, SEX, MARITAL STATUS, INCOME, EDUCATION, AND EXPERIENCE

Item	Position Title						Total	
	RN		LVN/LPN		Aide			
	N=137	100%	N=130	100%	N=131	100%	N=398	100%
Time in Present Position								
1 - 6 Months	29	21.2	16	12.3	20	15.3	65	16.3
7 - 11 Months	10	7.3	14	10.8	11	8.4	35	8.8
1 - 2 Years	40	29.2	36	27.7	29	22.1	105	26.4
3 - 4 Years	17	12.4	23	17.6	33	25.2	73	18.3
5 - 10 Years	23	16.9	20	15.4	23	17.6	66	16.6
10 Years Plus	15	9.8	19	14.6	14	10.8	48	12.1
No Answer	3	2.2	2	1.5	1	0.8	6	1.5
Prior Experience								
1 - 6 Months	12	8.8	4	3.1	16	12.2	32	8.0
7 - 11 Months	3	2.2	11	8.5	4	3.1	18	4.5
1 - 2 Years	30	21.9	22	16.9	26	19.9	78	19.6
3 - 4 Years	15	11.0	24	18.4	24	18.3	63	15.8
5 - 9 Years	34	24.7	32	24.5	26	19.8	92	23.1
10 Years Plus	41	29.7	35	27.0	34	26.1	110	27.6
No Answer* (part are less than 1 year)	2	1.5	2	1.5	1	0.8	5	1.3

*Prior experience - same job title only.

III. DATA ANALYSIS

Objectives of the Interim Report

For the purposes of this report, only a selected portion of the available data will be presented and analyzed. The rationale behind the selectivity of this report is that a preliminary examination of certain important parameters of task performance would both provide initial clues for the construction of curricula and suggest the lines along which subsequent and more comprehensive analysis should proceed. An additional factor in the decision to limit the scope of this report is the sheer amount of data available. For example, to examine one dimension of task performance, frequency, for the nursing occupations, requires scrutiny of 317 tasks by three categories of personnel. A rational plan for the complete analysis of the task inventory survey requires some segmentation of effort.

This report focuses on three major dimensions of task performance. The first dimension is the relative frequency of task performance by various personnel within 16 nursing areas. The major emphasis here is the characterization of the routine occupational activities of nursing personnel, indicating specifically what kinds of personnel are performing what kinds of tasks with what frequency.

Of particular interest for this report is how task activities are differentiated by occupational category. The issue of differentiation may be divided into two parts. First, what, in fact, is the distribution of performance among the three occupations of concern? The frequency data provide the answer to this question. The second part of the issue is the appropriateness of the distribution, i.e., is the task the primary responsibility of personnel with the training to discharge it adequately, or is it being performed largely by personnel who are undertrained or overtrained relative to its demands? Is it the case that a task which should be differentiated by level of competence is being shared equally by the three categories of personnel surveyed? To deal with this question, the report relies upon the expert judgment of the Technical Advisory Committee concerning the "appropriate level" of skill, the second dimension of task performance to be considered in this preliminary analysis.

The third dimension of concern here is "criticality." It is included in order to arrive at a preliminary assessment of those tasks which, in terms of expert opinion, are critical to the efficient and effective operation of nursing services. The frequency and appropriate level data, taken in conjunction with the rating on criticality assigned to each task, will permit exploration of such questions as: How frequently are critical services performed? What level of personnel is most involved in their execution? Are the personnel most involved likely to have the level of training necessary to perform critical tasks competently? Answers to questions such as these are of obvious relevance for the planning of curricula for both pre-service and in-service programs.

Data Presentation

Tasks will be analyzed within the 16 nursing areas delineated above. (See page 3.) At the conclusion of the report, a summary of the implications of the data examined will be presented along with recommendations for further analysis.

The measure of frequency of task performance is defined here as the percentage of respondents indicating that they perform a particular task "daily" or "almost daily" or "several times a week." Frequency of task performance will be presented for all personnel taken collectively, and for each of the three occupational groupings--the Registered Nurse, Licensed Practical/ Vocational Nurse, and Nurses' Aide.

Tasks within a nursing area will be presented in rank order (most frequently to least frequently) by frequency of performance by all personnel. Frequency and rank will also be given for each of the three nursing occupations. Ranking is employed in order to deal with the issue of "how frequent is frequent?" i.e., by making the criterion of a "frequently performed task" relative to the functional area in question.

Criticality is represented by the mean score accorded a task on the following scale by the National Technical Advisory Committee on Nursing:

1. Flexible. Relatively unimportant whether the task is done a certain way or not. Example: Read to patients.

2. Moderate Criticality. Is normally done within limited tolerance. Example: Put up side rails.

3. Average Criticality: Deviation from prescribed methods could result in minor delays or loss of resources. Example: Administer enema.

4. Above Average Criticality. Very little tolerance may be allowed without risk to worker or loss of resources. Example: Maintain isolation technique.

5. Highly Critical. Must be done within strict parameters to avoid irreversible loss of health or expensive equipment. Example: Administer intravenous medications.

The criticality score will also be assigned a rank, permitting an analysis of relative criticality of tasks as well as an assessment in terms of absolute scale values.

Appropriate level is defined by the judgment of the Advisory Committee. This judgment took the following form:

NONE: The task is not appropriately a nursing function.

ALL: The task is appropriate to all nursing personnel in question, i.e., RN, LVN/LPN and Nurses' Aide levels.

SOME: The task is appropriate to one or two but not all nursing personnel in question, as specified (e.g., RN, or RN, LVN/LPN, etc.).

Appropriate level will be indicated for each task, appended to its description.

In order to indicate the extent to which task performance is differentiated among the nursing occupations, percentage differences will be computed among RNs, LVN/LPNs and Nurses' Aides. These figures will serve to assess the extent to which a particular occupation performs the task more or less frequently than one or both of the other occupations. The sign (+ or -) of the difference figure indicates the direction of the difference.

In assessing differentiation of task performance, the question naturally occurs, "How much difference makes a difference?" This issue will be dealt with in two ways. First, a Chi-square has been computed on tables of frequency of task performance (Frequent/Infrequent) and occupational category (RN/LVN-LPN/Aide) for each task. A Chi-square large enough to attain the .05 level of significance or less will be taken to mean that for the given task, there is a low probability that the pattern of association of occupational category and frequency of task performance was due to chance. Hence, "statistical significance" provides one criterion for attaching importance to differences in the frequency of task performance observed among the nursing occupations.

The second guideline for analyzing differences in frequency is more of a rule-of-thumb nature, involving comparison of the size of differences. A small difference, even though significant in the statistical sense, may have little or no practical import for the construction of curricula. In addition, an assessment of the importance of task differentiation will take into account such other factors as the criticality of the task in question.

Whenever tasks are differentiated into a series of sub-tasks within a nursing area, a second set of tables will be presented which display such subdivided tasks as units of analysis. It is often the case that the differentiated elements of a task, e.g., "Carry out aseptic technique," are scattered throughout the overall distribution of frequency of task performance, thus destroying the unity of the task as the object of analysis. The second set of tables is provided to compensate for this.

In order to compare the 16 areas in terms of relative frequency of performance and criticality, medians will be computed for the distributions of interest. The median may be interpreted as a value which has just as many cases below it as above it. In the case of the distribution of tasks within a nursing area, the median (or as it will sometimes be referred to here, the mid-most) task is that task which has just as many tasks above as below it. If the number of tasks within an area is even, the mid-most task will be located between between two tasks.

The frequency of the mid-most task will be used to characterize the area as one in which tasks are performed frequently or infrequently, as the case may be. Medians for the distribution of criticality scores within nursing areas will also be reported. Table 21 presents the array of median task

frequencies and the median criticality scores for the 16 areas. Range of frequency of performance (all personnel) and range of criticality scores within the 16 nursing areas is presented in Table 22. These tables appear on Pages 99 and 100, respectively.

IV. DATA ANALYSIS BY FUNCTIONAL AREA

A. Diversional Therapeutic and Assistance Activities

Description of the Area

All tasks in this area have been grouped in Nursing Area A-1. By and large, the nine tasks comprising this functional area provide for patient contact with the world outside the hospital, either by assisting patients to communicate with it (e.g., #6, "Assist in writing letters, messages," and #7, "Assist in placing telephone calls"), or it to communicate with them (e.g., #8. "Receive and deliver messages and/or mail to patients"). Part of this contact involves providing the patient with certain amenities he could ordinarily obtain himself "on the outside" (e.g., #3, "Obtain and deliver supplies for patient's entertainment or recreation," and #9, "Obtain and deliver items for patient's personal use"). The prominent exception to this description of the tasks in this area is #5, "Assist in individual and group therapy." (See Table 5, below.)

The most frequently occurring task (#8) is reported by 49.7 percent of all personnel as occurring "daily" or "almost daily," or "several times a week." The percentage figure for the least frequently occurring task (#4) is 2.0 percent. The range of frequency of task performance is 47.7 percent, which ranks 11th of 16 areas and sub-areas covered by the task survey. The mid-most (median) task of the distribution of frequency of performance was #2, "Assist and/or participate in recreational activities . . . ," 21.9 percent, all personnel. Functional Area A ranked 11th in the distribution of 16 median frequencies for the areas surveyed.

The spread of criticality scores was from 3.0 to 1.16, i.e., from "average" to "flexible" on the criticality scale. The range of criticality scores was 1.84, which ranked eighth out of 16. The median criticality score is 1.38, lowest for all the areas. Seven out of the nine tasks in this area received a score equal to or less than 2. The two tasks rated most critical were #2 (2.5) and #5 (3.0), which ranked fifth and seventh, respectively, in terms of frequency of occurrence.

Four of the nine tasks in this area were judged by the Advisory Committee not to be nursing functions (#3, 4, 8 and 9). Four tasks were thought to be appropriate for all personnel (#1, 2, 6 and 7). The remaining task (#5) was deemed to be the responsibility of the RN.

It is worth noting that three of the four most frequently performed tasks in this area were not judged to be nursing functions. The first ranked task (#8) displays no significant difference in the frequency of its performance by the three categories of personnel. The second ranked task (#9) is performed most frequently by LVN/LPNs and Aides ($p \leq .001$). Task #3 was ranked fourth, and showed a graded pattern of differentiation with Aides the most frequent performers, followed by LVN/LPNs and RNs in that order ($p \leq .001$). The remaining non-nursing task was the least frequently performed, and showed

Table 5. APPROPRIATE LEVEL, FREQUENCY OF TASK PERFORMANCE BY CATEGORY OF PERSONNEL, PERCENTAGE DIFFERENCE IN FREQUENCY OF TASK PERFORMANCE BETWEEN CATEGORIES OF PERSONNEL AND CRITICALITY WITHIN THE FUNCTIONAL AREA OF DIVERSIONAL THERAPEUTIC AND ASSISTANCE ACTIVITIES

Task	Level*	Frequency (Percent of personnel saying task is performed "daily," or "almost daily," or "several times a week.")								Percent Difference			Criticality		p**
		All Personnel (N=398)		Staff Nurse (N=137)		LVN/LPN (N=130)		Nurses Aide (N=131)		RN Versus LVN/LPN	RN Versus Aide	LVN Versus Aide	Score	Rank	
		Rank	Percent	Rank	Percent	Rank	Percent	Rank	Percent						
8. Receive and deliver messages and/or mail to patients.	NONE	1	49.7	1	46.0	1	53.8	2	49.6	-8%	-4%	+4%	1.5	4.3	n.s.
9. Obtain and deliver items for patients' personal use.	NONE	2	44.5	3	25.5	2	51.5	1	57.3	-26%	-31%	-5%	1.33	7.5	.001
7. Assist in placing telephone calls.	ALL	3	41.0	2	33.6	3	46.2	3	43.5	-12%	-10%	+2%	1.16	9.0	n.s.
3. Obtain and deliver supplies for patients' entertainment or recreation.	NONE	4	23.1	4	13.1	5	22.3	4	34.4	-9%	-21%	-12%	1.5	4.3	.001
2. Assist and/or participate in recreational activities.	ALL	5	21.9	6.5	9.5	4	23.1	5	33.6	-13%	-24%	-11%	2.5	2.0	.001
1. Read to patients.	ALL	6	12.8	6.5	9.5	6	13.8	6	15.3	-4%	-5%	-1%	1.33	7.5	n.s.
5. Assist with individual and group therapy.	RN	7	9.5	5	10.2	7	9.2	8	9.2	+1%	+1%	0	3.0	1.0	n.s.
6. Assist in writing letters, messages.	ALL	8	9.3	8	8.0	8	6.9	7	13.0	+1%	-5%	-6%	1.5	4.3	n.s.
4. Assist and/or participate in occupational activities with patients.	NONE	9	2.0	9	1.5	9	2.3	9	2.3	0	0	0	2.0	3.0	n.s.

*Appropriateness of task to category of personnel as determined by the National Advisory Committee.
**Level of significance for Chi-square computed on 2x3 tables comparing frequency of task performance by category of personnel.
n.s. indicates p value greater than .05.

no significant differentiation in frequency of performance by category of personnel.

Three of the four tasks designated as appropriate to all personnel (#1, 6 and 7) showed no significant differences in performance by the RN, LVN/LPN and Aide. Task #2 was most frequently performed by the Aide ($p \leq .001$). Task #5, assigned to the domain of the RN by the Advisory Committee, was not significantly differentiated in performance.

General Remarks

Functional Area A is characterized by the low criticality of its component tasks, the relatively narrow spread of frequency of performance, and a comparatively low median frequency of performance. This suggests that the task activities covered in this area form a more or less homogeneous grouping of patient services which in some sense are relatively unimportant compared to other services, and infrequently offered. But, in another view, these tasks probably assist the patient in adjusting comfortably to his stay in the hospital, and hence to a favorable outlook on his hospital experience.

The patterns of task activity for the four most frequently performed tasks sketched just above most probably reflect the general organization of work on the ward. The nurses' station is a natural message center and it is not surprising to see that all nursing personnel are involved in relaying messages and delivering mail. For those tasks which are more time-consuming and require leaving the floor to perform (e.g., obtaining items for patient's personal use), the utilization of less essential personnel is to be expected.

The prominent position of non-nursing tasks in this area, their low criticality and frequency, suggest the following with regard to curricular development. It is obvious that, with the possible exception of Tasks #2 and 5, no specific training is called for. However, in developing materials for an overall orientation to the actual round of work in the hospital setting, brief reference to the variety of small services nursing personnel are called upon to perform in the course of the day's work might prove useful. This is particularly the case with personnel moving from the training situation to their regular positions. Knowing what to expect can be important for adjustment to a new job. This point will be kept in mind when examining subsequent functional areas.

B. Safety and Comfort

1. Patient Protection

Description of the Area

In all, 19 tasks are included in this subdivision of Functional Area B. These activities, viewed as oriented to "patient protection," may be further specified into three groupings of sub-tasks: (a) explaining and applying safety regulations and caring for patients (#12.1-4); (b) carrying out aseptic technique (#15.1-7); and (c) carrying out isolation technique (#16.1-4). Four out of 19 tasks (21%) are classified under (a); seven out of 19 (37%) fall within the domain of (b); and four of 19 (21%) belong to (c). Of the remaining four tasks, three (15.7%) can be viewed as administrative procedures related to patient protection (e.g., #10, "Count, sign for, and place patient's personal possessions in safe place;" also #13 and #14); the remaining task (#11, "Use precautions in administering and handling drugs . . . ") could be classified with (a) above.

In terms of frequency of performance by all personnel, patient protection activities vary from 91.5 percent (#12.3, "Adjust side rails") to 6.5 percent (#14, "Prepare accident and safety reports"). (See Table 6 , below.) The range of distribution is 85.0 percent, largest of any area surveyed. The mid-most (median) task is #11, "Use precautions in administering and handling drugs," 43.7 percent, all personnel. This is the fourth highest median frequency of performance of the 16 nursing areas covered. The nine tasks above the median all exceed 50 percent in terms of frequency of performance, contrasting markedly with Functional Area A, in which no task exceeded 50 percent.

The criticality scores assigned these tasks vary from 4.5 to 2.16. The median criticality score is 3.65, third highest relative to the other areas. Sixteen of the 19 tasks were assigned scores of 3.0 or above, i.e., were judged to be of "average" criticality or above. Thirteen of these 16 were clustered around criticality scale value 4 (3.66-4.5), "above average" criticality. As might be expected, these patient protection activities are viewed by the Advisory Committee as more critical than the "diversionary" tasks comprising Functional Area A.

A little less than one-half (8 of 19) of the tasks were judged to be undifferentiated, that is, as appropriate to all three occupational categories (#11, 12.1-4, 16.1-3). Seven out of 19 were deemed to be the responsibility of the RN and LVN/LPN (#15.1-7). Three of 19 were not seen to be nursing functions (#10, 13, 16.4) and no judgment was rendered on one task (#14).

With respect to actual performance, five of the eight tasks deemed appropriate for all personnel were significantly differentiated ($p \leq .05$ to .001); #12.1, 12.4 and 16.3 displayed a pattern of more frequent performance by the LVN/LPN and Aide than the RN; #16.2 was most frequently performed by the LVN/LPN and #11 most frequently performed by the RN. The remaining three tasks (#12.2, 12.3 and 16.1) showed no significant differences in frequency of performance by category of personnel.

Table 6. APPROPRIATE LEVEL, FREQUENCY OF TASK PERFORMANCE BY CATEGORY OF PERSONNEL, PERCENTAGE DIFFERENCE IN FREQUENCY OF TASK PERFORMANCE BETWEEN CATEGORIES OF PERSONNEL AND CRITICALITY WITHIN THE FUNCTIONAL AREA OF SAFETY AND COMFORT: B-1. Patient Protection

Task	Level*	Frequency (Percent of personnel saying task is performed "daily," or "almost daily," or "several times a week.")								Percent Difference			Criticality		p**
		All Personnel (N=398)		Staff Nurse (N=137)		LVN/LPN (N=130)		Nurses Aide (N=131)		RN Versus		LVN Versus			
		Rank	Percent	Rank	Percent	Rank	Percent	Rank	Percent	LVN/LPN	Aide	Aide	Score	Rank	
12.3 Adjust side rails.	ALL	1	91.5	1	88.3	2	91.5	1	94.7	-4%	-7%	-3%	2.16	18.5	n.s.
12.4 Adjust height of bed.	ALL	2	88.2	2	81.0	1	94.6	2	89.3	-14%	-8%	+6%	2.16	18.5	.01
16.2 Wash hands.	ALL	3	65.3	8	56.2	3	76.2	3	64.1	-20%	-8%	+12%	3.66	7.14	.01
15.1 Open sterile packages and packs.	RN,LVN	4	63.1	3	78.1	4	74.6	7	35.9	+3%	+42%	+39%	4.0	2.5	.001
15.3 Pour sterile solutions.	RN,LVN	5	53.5	6	69.3	5	65.4	10	25.2	+4%	+44%	+40%	3.83	4.3	.001
10.0 Count, sign for, and place patient's personal possessions in safe place.	NONE	6	53.3	11	43.1	7.5	60.8	4	56.5	-18%	-14%	+4%	2.33	17.0	.01
15.7 Handle sterile equipment.	RN,LVN	7	53.0	7	65.0	6	64.6	8	29.0	0	+36%	+36%	3.83	4.3	.001
12.2 Explain and apply smoking regulations.	ALL	8	52.3	9	51.1	9	57.7	6	48.1	-7%	+3%	+10%	3.0	15.5	n.s.
15.2 Apply sterile dressings and bandages.	RN,LVN	9	52.0	5	70.8	7.5	60.8	13	23.7	+10%	+47%	+37%	4.0	2.5	.001
11.0 Use precautions in administering and handling drugs, etc.	ALL	10	43.7	4	75.2	12	44.6	17	9.9	+30%	+65%	+35%	4.5	1.0	.001
12.1 Apply restraints	ALL	11	43.0	13	32.1	11	47.7	5	49.6	-16%	-18%	-2%	3.0	15.5	.01
15.6 Apply sterile gloves.	RN,LVN	12	38.2	12	41.6	10	48.5	11.5	24.4	-7%	+18%	+25%	3.66	7.14	.001
13.0 Obtain patient and/or family consent for treatment.	NONE	13	30.2	10	48.9	14	26.9	14	13.7	+22%	+35%	+13%	3.5	14.0	.001
16.4 Dispose of contaminated materials and equipment.	NONE	14	27.9	14	19.7	13	36.9	9	27.5	-17%	-8%	+9%	3.66	7.14	.01
16.3 Take into and remove equipment and supplies from contaminated room.	ALL	15	21.4	15	13.9	15	26.2	11.5	24.4	-12%	-10%	+2%	3.66	7.14	.05
16.1 Apply and remove gown and mask.	ALL	16	15.3	17	11.7	16	21.5	15	13.0	-10%	-1%	+9%	3.66	7.14	n.s.

*Appropriateness of task to category of personnel as determined by the National Advisory Committee.
**Level of significance for Chi-square computed on 2x3 tables comparing frequency of task performance by category of personnel.
n.s. indicates p value greater than .05.

Table 6.
(Continued)

APPROPRIATE LEVEL, FREQUENCY OF TASK PERFORMANCE BY CATEGORY OF PERSONNEL, PERCENTAGE DIFFERENCE IN FREQUENCY OF TASK PERFORMANCE BETWEEN CATEGORIES OF PERSONNEL AND CRITICALITY WITHIN THE FUNCTIONAL AREA OF SAFETY AND COMFORT: B-1. Patient Protection

Task	Level*	Frequency (Percent of personnel saying task is performed "daily," or "almost daily," or "several times a week.")								Percent Difference			Criticality		p**
		All Personnel (N=398)		Staff Nurse (N=137)		LVN/LPN (N=130)		Nurses Aide (N=131)		RN Versus		LVN Versus			
		Rank	Percent	Rank	Percent	Rank	Percent	Rank	Percent	LVN/LPN	Aide	Aide	Score	Rank	
15.4 Do sterile scrub.	RN,LVN	17	13.1	16	13.1	17	17.7	18	8.4	-5%	+5%	+10%	3.83	4.3	n.s.
15.5 Apply sterile gown.	RN,LVN	18	12.6	18	10.9	18	16.2	16	10.7	-5%	0	+5%	3.66	7.14	n.s.
14.0 Prepare accident and safety reports.	NO JDGMT	19	6.5	19	8.8	19	6.9	19	3.8	+2%	+5%	+3%	3.66	7.14	n.s.

*Appropriateness of task to category of personnel as determined by the National Advisory Committee.
**Level of significance for Chi-square computed on 2x3 tables comparing frequency of task performance by category of personnel.
n.s. indicates p value greater than .05.

General Remarks

An examination of the four most frequently occurring tasks (#12.3, "Adjust side rails;" #12.4, "Adjust height of bed;" #16.2, "Wash hands;" and #15.1, "Open sterile packages and packs") suggests that, by the criterion of relative frequency, these four tasks are commonplace features of daily work activities within this sub-area. The two most frequent tasks (#12.3 and 12.4) are deemed appropriate to all personnel, and the data indicate that, practically speaking, there is no important differentiation in terms of performance.* Both tasks are at the bottom of the distribution of criticality within this area. Obviously, these findings are not spectacular, and have little significance for curricular development in and of themselves.

The third most frequent task (#16.2, "Wash hands") is one of the sub-tasks of the more comprehensive activity, "Carrying out isolation technique." It is performed most frequently by the LVN/LPN, followed by the Aide and the RN in that order. It has the criticality score of 3.66. It is tempting to conclude from the frequency figures that LVN/LPNs have more need to wash their hands than other categories of personnel, presumably due to involvement in activities which call for this precaution. It could equally be the case that the other two categories are neglectful of this practice, although it is difficult to view the RN in this light. In any event, such a basic precaution is certainly a part of any training program for any nursing occupation.

The fourth task (#15.1) rated 4.0 on the scale ("above average") and is deemed the proper function of the RN and LVN/LPN. This is, in fact, how the performance of the task was distributed among the occupations, there being little difference (3%) between RN and LVN/LPN, and sizable differences between these two categories and the Aide (42% and 39%, respectively; $p \leq .001$). However differentiated, over one-third of the Nurses' Aides reported performing this task frequently. (When viewed with respect to the series of the seven tasks specifying the activity of "Carrying out aseptic technique," #15.1 is the most frequently occurring task for the Nurses' Aide, as it is for the RN and LVN/LPN.) (See Table 6-A.)

Another task classified under aseptic procedure (#15.2, "Apply sterile dressings and bandages") ranked eighth in terms of frequency of performance. It can be seen by consulting Table 6 that this activity is deemed the proper function of the RN and LVN/LPN. Data on actual performance are in accordance with this judgment, the two higher skilled occupations being far more likely to perform the task ($p \leq .001$). However, as in the case of #15.1, participation in this task by Nurses' Aides is not insignificant. One-quarter of the

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*Task #12.4 displays a slight but statistically significant tendency for more frequent performance by the LVN/LPN and Aide. This task is a good example of the need for caution in assessing the import of statistical significance. The percentage figures are 81 percent vs. 94.6 percent vs. 89.3 percent for the RN, LVN/LPN and Aide, respectively. Were the task of a character requiring specialized training, all three categories of personnel would properly receive such education, the statistically significant differences among them notwithstanding.

Table 6-A. APPROPRIATE LEVEL, FREQUENCY OF TASK PERFORMANCE BY CATEGORY OF PERSONNEL, PERCENTAGE DIFFERENCE IN FREQUENCY OF TASK PERFORMANCE BETWEEN CATEGORIES OF PERSONNEL AND CRITICALITY WITHIN THE FUNCTIONAL AREA OF SAFETY AND COMFORT: B-1. Patient Protection (Sub-tasks)

Task	Level*	Frequency (Percent of personnel saying task is performed "daily," or "almost daily," or "several times a week.")								Percent Difference			Criticality		p**
		All Personnel (N=398)		Staff Nurse (N=137)		LVN/LPN (N=130)		Nurses Aide (N=131)		RN Versus LVN/LPN	RN Versus Aide	LVN Versus Aide	Score	Rank	
		Rank	Percent	Rank	Percent	Rank	Percent	Rank	Percent						
12.0 Explain and apply safety regulations in caring for patients:															
12.3 Adjust side rails.	ALL	1	91.5	1	88.3	2	91.5	1	94.7	-4%	-7%	-3%	2.16	3.5	n.s.
12.4 Adjust height of bed.	ALL	2	88.2	2	81.0	1	94.6	2	89.3	-14%	-8%	+6%	2.16	3.5	.01
12.2 Smoking regulations.	ALL	3	52.3	3	51.1	3	57.7	4	48.1	-7%	+3%	+10%	3.0	1.5	n.s.
12.1 Apply restraints.	ALL	4	43.0	4	32.1	4	47.7	3	49.6	-16%	-18%	-2%	3.0	1.5	.01
15.0 Carry out aseptic technique:															
15.1 Open sterile packages and packs.	RN,LVN	1	63.1	1	78.1	1	74.6	1	35.9	+3%	+42%	+39%	4.0	1.5	.001
15.3 Pour sterile solutions.	RN,LVN	2	53.5	3	69.3	2	65.4	3	25.2	+4%	+44%	+40%	3.83	3.3	.001
15.7 Handle sterile equipment.	RN,LVN	3	53.0	4	65.0	3	64.6	2	29.0	0	+36%	+36%	3.83	3.3	.001
15.2 Apply sterile dressings and bandages.	RN,LVN	4	52.0	2	70.8	4	60.8	5	23.7	+10%	+47%	+37%	4.0	1.5	.001
15.6 Apply sterile gloves.	RN,LVN	5	38.2	5	41.6	5	48.5	4	24.4	-7%	+18%	+25%	3.66	6.5	.001
15.4 Do sterile scrub.	RN,LVN	6	13.1	6	13.1	6	17.7	7	8.4	-5%	+5%	+10%	3.83	3.3	n.s.
15.5 Apply sterile gown.	RN,LVN	7	12.6	7	10.9	7	16.2	6	10.7	-5%	0	+5%	3.66	6.5	n.s.
16.0 Carry out isolation technique:															
16.2 Wash hands.	ALL	1	65.3	1	56.2	1	76.2	1	64.1	-20%	-8%	+12%	3.66	1.25	.01
16.4 Dispose of contaminated materials and equipment.	NONE	2	27.9	2	19.7	2	36.9	2	27.5	-17%	-8%	+9%	3.66	1.25	.01
16.3 Take into and remove equipment and supplies from contaminated room.	ALL	3	21.4	3	13.9	3	26.2	3	24.4	-12%	-10%	+2%	3.66	1.25	.05
16.1 Apply and remove gown and mask.	ALL	4	15.3	4	11.7	4	21.5	4	13.0	-10%	-1%	+9%	3.66	1.25	n.s.

*Appropriateness of task to category of personnel as determined by the National Advisory Committee.
**Level of significance for Chi-square computed on 2x3 tables comparing frequency of task performance by category of personnel.
n.s. indicates p value greater than .05.

Aides responding indicated that they frequently performed this task, rated at 4.0 ("above average") on the criticality scale. A similar pattern is found for Task #15.3 ("Pour sterile solutions"), rated 3.83 on the criticality scale, and #15.6 ("Apply sterile gloves"), at 3.66. Even though Tasks #15.1, 15.2, 15.3 and 15.6 are clearly differentiated in the direction judged appropriate by the Advisory Committee, the need for some attention to instruction in aseptic technique at all occupational levels seems apparent. If, in hospital practice, Aides are assigned duties from time to time which, in some sense, are more appropriate to more highly trained specialties, a curriculum tailored to the needs of the actual workplace must recognize this fact. It should be noted that in the series of tasks comprising aseptic technique, the spread of criticality scores is from 3.66-4.0, indicating the importance assigned to these activities.

The sixth rated task (#10, "Count, sign for, and place patient's personal possessions in safe place") is not judged to be a nursing task. It ranks 11th in frequency for the RN, 7.5 for the LVN/LPN and fourth for the Aide, and tends to be more frequently performed by the latter two occupations. Like the nursing tasks discussed in Functional Area A, this procedure constitutes a recurring service rendered by nursing personnel, one which the orientation segment of a curriculum might include.

The task rated most critical within this division of Functional Area B ranked tenth (43.7%) in frequency (#11, "Use precautions in administering drugs"). In terms of appropriate level, all personnel are deemed responsible for exercising care in drug handling. As should be expected, however, the task is sharply differentiated in actual practice (see Table 6). It is the fourth most frequent task for the RN, 12th for the LVN/LPN and 17th for the Aide. Education for this task, rated 4.5 on the criticality scale (between "above average" and "highly critical"), is obviously a basic part of any nursing curriculum. Even though infrequently performed by Nurses' Aides, it seems appropriate that training in the fundamentals of drug safety be provided them as well.

Obtaining patient or family consent for treatment (#13) ranked 13th (30.2%) in frequency of performance. Although it was not deemed a nursing function, almost one-third of all nursing personnel and nearly half (48.9%) of RNs reported performing it frequently. The responsibility for the task was clearly differentiated by skill level ($p \leq .001$), the RN performing it more frequently than the Aide. It was assigned a score of 3.5 on the criticality scale. While further analysis of the dimensions of this task is required (e.g., in terms of its rating on the "human interaction" and "cognitive difficulty" scales as well as the data on level of supervision), it would seem that some training in the performance of this activity would be desirable.

2. Personal Hygiene and General Comfort

Description of the Area

Nursing Area B-2, "Personal Hygiene and General Comfort," may be further classified into five domains of task activity: (a) making the patient's bed (#18.1-3); (b) assisting the patient to dress and undress (#22 and 26); (c) general grooming (#19.1-2, 17, 20, 21, 23); (d) skin care (#24.1-5); (e) use of comfort devices (#25 and 27.1-6). The most frequently occurring task was

Table 7. APPROPRIATE LEVEL, FREQUENCY OF TASK PERFORMANCE BY CATEGORY OF PERSONNEL, PERCENTAGE DIFFERENCE IN FREQUENCY OF TASK PERFORMANCE BETWEEN CATEGORIES OF PERSONNEL AND CRITICALITY WITHIN THE FUNCTIONAL AREA OF SAFETY AND COMFORT: B-2. Personal Hygiene and General Comfort

Task	Level*	Frequency (Percent of personnel saying task is performed "daily," or "almost daily," or "several times a week.")								Percent Difference			Criticality		p**
		All Personnel (N=398)		Staff Nurse (N=137)		LVN/LPN (N=130)		Nurses Aide (N=131)		RN Versus		LVN Versus			
		Rank	Percent	Rank	Percent	Rank	Percent	Rank	Percent	LVN/LPN	Aide	Aide	Score	Rank	
26.0 Change soiled linen and clothes.	ALL	1	80.4	1	58.4	1	91.5	1	92.4	-34%	-34%	0	2.33	14.0	.001
22.0 Assist patient with dressing and undressing.	ALL	2	73.4	2	51.8	3.5	80.8	2	88.5	-29%	-37%	-8%	1.83	19.0	.001
18.1 Make patient's bed, occupied.	ALL	3	69.8	4	43.1	5	80.0	3	87.8	-37%	-45%	-8%	2.16	15.25	.001
18.2 Make patient's bed, unoccupied.	ALL	4	68.6	3	45.3	2	81.5	6	80.2	-37%	-35%	+2%	1.5	23.0	.001
21.0 Give or assist patient with oral hygiene.	ALL	5	66.3	6	38.7	3.5	80.8	5	80.9	-42%	-42%	0	2.83	7.5	.001
17.0 Give or assist patient to take bath.	ALL	6	65.3	5	39.4	7	76.2	4	81.7	-37%	-43%	-6%	2.16	15.25	.001
25.0 Give backrubs.	ALL	7	61.8	9.5	32.8	6	77.7	7	76.3	-45%	-43%	+2%	2.16	15.25	.001
19.1 Comb patient's hair.	ALL	8	60.3	7.5	35.0	8	71.5	8	75.6	-37%	-41%	-4%	1.66	20.3	.001
27.3 Use of sheepskins, lambswool pads.	ALL	9	47.5	9.5	32.8	10	54.6	9	55.7	-22%	-23%	-1%	2.66	9.25	.001
18.3 Make . . . recovery, anesthetic bed.	NO JDGMT	10	45.5	7.5	35.0	9	56.2	11	45.8	-21%	-11%	+10%	1.66	20.3	.01
24.3 Give general skin care to patients in restraints.	ALL	11	38.7	12.5	18.2	11	48.5	10	50.4	-31%	-32%	-1%	3.16	4.0	.001
24.5 Give general skin care to patients with decubitus ulcers.	ALL	12	32.2	11	21.2	13	40.0	12.5	35.9	-19%	-15%	+4%	3.83	1.3	.01
27.2 Use footboards.	ALL	13.5	27.9	15.25	14.6	14	36.2	14	33.6	-21%	-19%	+2%	2.66	9.25	.001
24.1 Give general skin care to patients in casts.	ALL	13.5	27.9	15.25	14.6	12	40.8	18.5	29.0	-26%	-14%	+12%	3.0	5.5	.001
24.4 Give general skin care to comatose and semicomatose patients.	ALL	15	27.4	12.5	18.2	15	35.4	18.5	29.0	-17%	-11%	+6%	3.83	1.3	.01
24.2 Give general skin care to patients in traction.	RN,LVN	16	27.1	15.25	14.6	16	31.5	12.5	35.9	-17%	-21%	-4%	3.83	1.3	.001

*Appropriateness of task to category of personnel as determined by the National Advisory Committee.
**Level of significance for Chi-square computed on 2x3 tables comparing frequency of task performance by category of personnel.
n.s. indicates p value greater than .05.

Table 7.
(Continued)

APPROPRIATE LEVEL, FREQUENCY OF TASK PERFORMANCE BY CATEGORY OF PERSONNEL, PERCENTAGE DIFFERENCE IN FREQUENCY OF TASK PERFORMANCE BETWEEN CATEGORIES OF PERSONNEL AND CRITICALITY WITHIN THE FUNCTIONAL AREA OF SAFETY AND COMFORT: B-2. Personal Hygiene and General Comfort

Task	Level*	Frequency (Percent of personnel saying task is performed "daily," or "almost daily," or "several times a week.")								Percent Difference			Criticality		p**
		All Personnel (N=398)		Staff Nurse (N=137)		LVN/LPN (N=130)		Nurses Aide (N=131)		RN Versus LVN/LPN	RN Versus Aide	LVN Versus Aide	Score	Rank	
		Rank	Percent	Rank	Percent	Rank	Percent	Rank	Percent						
20.0 Care for or assist patient to care for toenails and fingernails.	ALL	17	24.9	14	15.3	17	29.2	16	30.5	-14%	-16%	-2%	2.16	15.25	.01
27.5 Use air rings, doughnuts.	ALL	18	23.6	15.25	14.6	18	26.9	17	29.8	-12%	-15%	-3%	2.83	7.5	.01
27.1 Use overbed cradles.	ALL	19	20.6	20	11.7	19	25.4	20	25.2	-13%	-13%	0	2.66	9.25	.01
23.0 Assist with and/or shave male patients.	ALL	20	19.3	23	4.4	20	23.1	15	31.3	-19%	-27%	-8%	2.5	13.0	.001
27.4 Use trochanter rolls, sandbags.	ALL	21	15.3	19	12.4	21	20.8	21.5	13.0	-9%	-1%	+8%	2.66	9.25	n.s.
27.6 Alternate pressure matresses.	ALL	22	14.1	21	10.2	22	20.0	23	12.2	-10%	-2%	+8%	3.0	5.5	n.s.
19.2 Give or assist patient in shampoo.	ALL	23	7.8	22	5.1	23	5.4	21.5	13.0	0	-8%	-8%	1.66	20.3	.05

*Appropriateness of task to category of personnel as determined by the National Advisory Committee.
**Level of significance for Chi-square computed on 2x3 tables comparing frequency of task performance by category of personnel.
n.s. indicates p value greater than .05.

#26, "Change soiled linen and clothes" (80.4%, all personnel). It may be noted that this task was also the activity most frequently performed by all three categories of personnel (see Table 7 , above), although RNs performed it much less frequently (58.4%) than LVN/LPNs and Aides (91.5% and 92.4%, respectively). The least frequently occurring task was #19.2, "Give or assist patient in shampoo" (7.8%, all personnel). The range of frequency of performance was 72.6 percent, sixth highest of the 16 areas and sub-areas under scrutiny. The mid-most task was #24.5, "Give general skin care to patients with decubitus ulcers" (32.2%, all personnel). The frequency of the median task was seventh highest of all the areas. Functional Area B-2 stands close to the middle position in the array of functional areas and sub-areas.

In terms of criticality, scores varied from 1.50 to 3.83, with a median score of 2.04 ("moderate" criticality), close to the bottom of the distribution of median criticality scores (14th) across the 16 nursing areas. Within the area, "Personal Hygiene and General Comfort," itself, the spread of criticality scores above the median task was 1.5 to 2.83; below, it was 1.66 to 3.83, suggesting that the most critical tasks tend to be performed less frequently. The most critical tasks (criticality scores of 3.02-3.83, "average" to "above average" criticality) were concentrated in the #24.1-5 series. "General skin care" serves clear-cut preventive and therapeutic purposes. Frequency of performance of "skin care" tasks ranges from 38.7 percent to 27.1 percent. LVN/LPNs and Aides tend to perform these tasks more frequently than RNs.

In the judgment of the Advisory Committee, 21 of the 23 tasks in this sub-area are appropriate to all personnel (see Table 7). No judgment was given for one task (#18.3); another task (#24.2) was deemed a function of the RN and LVN/LPN. However, the pattern of task performance is clearly differentiated. The preponderance of tasks in this area are most frequently performed by the LVN/LPN and Nurses' Aide, including Task #24.2, which was most frequently performed by the Aide. Tasks #18.3, 24.1 and 27.1 tended to be performed most frequently by the LVN/LPN and Task #19.2, by the Aide.

General Remarks

Compared to Nursing Area 1 of Functional Area B, Nursing Area 2 is composed of less critical tasks (the median criticality score for Area B-1 was 3.65, versus 2.04 for Area B-2). While a little less than one-half (8 of 19) of the tasks in B-1 were judged to be differentiated, almost all of the tasks in B-2 were deemed appropriate to all levels of personnel. As indicated, task performance in B-2 was nevertheless differentiated in the direction of the LVN/LPN and Aide; the most critical series of tasks (#24.1-5) followed this pattern.

A picture that emerges here is that of a division of labor in which routine care, such as personal hygiene, is handled by less skilled personnel. The task most frequently performed by the RN is #26, "Change soiled linen and clothes" (58.4%), but this was done much more frequently by LVN/LPNs (91.5%) and Aides (92.4%). The eight most frequently performed tasks in terms of all personnel (almost one-third of the total tasks in Area B-2) were performed more frequently by LVN/LPNs and Aides. (See Table 7-A.)

Table 7-A. APPROPRIATE LEVEL, FREQUENCY OF TASK PERFORMANCE BY CATEGORY OF PERSONNEL, PERCENTAGE DIFFERENCE IN FREQUENCY OF TASK PERFORMANCE BETWEEN CATEGORIES OF PERSONNEL AND CRITICALITY WITHIN THE FUNCTIONAL AREA OF SAFETY AND COMFORT: B-2. Personal Hygiene and General Comfort (Sub-tasks)

Task	Level*	Frequency (Percent of personnel saying task is performed "daily," or "almost daily," or "several times a week.")								Percent Difference			Criticality		p**
		All Personnel (N=398)		Staff Nurse (N=137)		LVN/LPN (N=130)		Nurses Aide (N=131)		RN Versus		LVN Versus			
		Rank	Percent	Rank	Percent	Rank	Percent	Rank	Percent	LVN/LPN	Aide	Aide	Score	Rank	
18.0 Make patient's bed:															
18.1 Occupied.	ALL	1	69.8	2	43.1	2	80.0	1	87.8	-37%	-45%	-8%	2.16	1.0	.001
18.2 Unoccupied.	ALL	2	68.6	1	45.3	1	81.5	2	80.2	-37%	-35%	+2%	1.5	3.0	.001
18.3 Recovery, anesthetic bed.	NO JDGMT	3	45.5	3	35.0	3	56.2	3	45.8	-21%	-11%	+10%	1.66	2.0	.01
19.0 Care for or assist patient to care for hair:															
19.1 Comb.	ALL	1	60.3	1	35.0	1	71.5	1	75.6	-37%	-41%	-4%	1.66	1.5	.001
19.2 Shampoo.	ALL	2	7.8	2	5.1	2	5.4	2	13.0	0	-8%	-8%	1.66	1.5	.05
24.0 Give general skin care to:															
24.3 Patients in restraints.	ALL	1	38.7	2.5	18.2	1	48.5	1	50.4	-31%	-32%	-1%	3.16	4.0	.001
24.5 Patients with decubitus ulcers.	ALL	2	32.2	1	21.2	3	40.0	2.5	35.9	-19%	-15%	+4%	3.83	1.3	.01
24.1 Patients in casts.	ALL	3	27.9	4.5	14.6	2	40.8	4.5	29.0	-26%	-14%	+12%	3.0	5.0	.001
24.4 Comatose or semicomatose patients.	ALL	4	27.4	2.5	18.2	4	35.4	4.5	29.0	-17%	-11%	+6%	3.83	1.3	.01
24.2 Patients in traction.	RN,LVN	5	27.1	4.5	14.6	5	31.5	2.5	35.9	-17%	-21%	-4%	3.83	1.3	.001
27.0 Use supportive and comfort devices:															
27.3 Sheepskins, lambswool pads.	ALL	1	47.5	1	32.8	1	54.6	1	55.7	-22%	-23%	-1%	2.66	3.25	.001
27.2 Footboards.	ALL	2	27.9	2.5	14.6	2	36.2	2	33.6	-21%	-19%	+2%	2.66	3.3	.001
27.5 Air rings, doughnuts.	ALL	3	23.6	2.5	14.6	3	26.9	3	29.8	-12%	-15%	-3%	2.83	2.0	.01
27.1 Overbed cradles.	ALL	4	20.6	5	11.7	4	25.4	4	25.2	-13%	-13%	0	2.66	3.25	.01
27.4 Trochanter rolls, sandbags.	ALL	5	15.3	4	12.4	5	20.8	5	13.0	-9%	-1%	+8%	2.66	3.25	n.s.
27.6 Alternating pressure mattresses.	ALL	6	14.1	6	10.2	6	20.0	6	12.2	-10%	-2%	+8%	3.0	1.0	n.s.

*Appropriateness of task to category of personnel as determined by the National Advisory Committee.
**Level of significance for Chi-square computed on 2x3 tables comparing frequency of task performance by category of personnel.
n.s. indicates p value greater than .05.

That tasks concerned with routine personal hygiene are allocated to less specialized personnel is not surprising. The judgment of the Advisory Committee that the vast majority of tasks in this sub-area are appropriate to all nursing personnel can be interpreted as proposing that such tasks are part of the hospital routine that any nursing occupation can be expected to share. The judgment rendered on these commonplace activities does not, in this view, bear upon the actual allocation of effort by category of personnel (in terms of frequency of performance).

As indicated earlier, the most critical series of tasks are those grouped under the label, "General skin care." The general pattern was for these five activities to be most frequently performed by the LVN/LPN and Aide. An obvious implication is that attention should be given to the formulation of a unit of instruction on the techniques of general skin care in programs oriented to these two nursing occupations.

3. Religious and Spiritual Care

Description of the Area

Six tasks comprise this nursing area. The most frequently occurring task overall is #33, "Assist patient in observing religious dietary restrictions," (10.3%, all personnel); the least frequently occurring is #31, "Participate, assist in the administration of sacraments" (0.3%, all personnel). (See Table 8). The range in frequency is 10 percent, ranked 16th over all areas. The mid-most task falls between #29 (6.3%, all personnel) and #30 (3.8%, all personnel); the frequency of the median task can be viewed as 5.0 percent, also ranked 16th over all areas. It is obvious that the tasks in this sub-area are, in terms of frequency, a minor segment of the work of nursing personnel.

Criticality scores varied from 3.33 to 1.66, with a median score of 2.68, a little below "average" criticality. Viewed with respect to the distribution of median criticality scores for all areas, B-3 ranked 12.5, in the bottom quarter of the distribution. (See Table 22.)

Five of the six tasks are considered by the Advisory Committee to be appropriate to all levels of personnel; the sixth task (#30, "Call clergy") was not deemed to be a nursing function. Only one task was differentiated in practice, #28, "Prepare patient to see clergy," 9.5 percent, all personnel, which was most frequently performed by the LVN/LPN and Aide ($p \leq .01$).

General Remarks

Like the "diversionary" tasks of Area A, the services performed in this area might be viewed as contributing to the patient's adjustment to his illness, course of treatment, and prognosis. While infrequently performed, these activities may nonetheless be of considerable importance to the patient. It might be appropriate, in view of these considerations, to include in an orientation unit within a curriculum or in-service program reference to and possibly brief discussion of these services.

Table 8. APPROPRIATE LEVEL, FREQUENCY OF TASK PERFORMANCE BY CATEGORY OF PERSONNEL, PERCENTAGE DIFFERENCE IN FREQUENCY OF TASK PERFORMANCE BETWEEN CATEGORIES OF PERSONNEL AND CRITICALITY WITHIN THE FUNCTIONAL AREA OF SAFETY AND COMFORT: B-3. Religious and Spiritual Care

Task	Level*	Frequency (Percent of personnel saying task is performed "daily," or "almost daily," or "several times a week.")								Percent Difference			Criticality		p**
		All Personnel (N=398)		Staff Nurse (N=137)		LVN/LPN (N=130)		Nurses Aide (N=131)		RN Versus		LVN Versus			
		Rank	Percent	Rank	Percent	Rank	Percent	Rank	Percent	LVN/LPN	Aide	Aide	Score	Rank	
33. Assist patient in observing religious dietary restrictions.	ALL	1	10.3	2	5.1	1	13.1	2	13.0	-8%	-8%	0	3.33	1.0	.05
28. Prepare patient to see clergy.	ALL	2	9.5	3	3.6	2	10.7	1	14.5	-7%	-11%	-4%	2.33	5.0	.01
29. Prepare patient to receive sacraments.	ALL	3	6.3	4	2.2	3	8.5	3	8.4	-7%	-6%	+1%	2.66	3.5	n.s.
30. Call clergy.	NONE	4	3.8	1	5.8	4	3.1	5	2.3	+3%	+4%	+1%	1.66	6.0	n.s.
32. Assist patient in religious rites.	ALL	5	2.3	5	1.5	5	0.8	4	4.6	+1%	-3%	-4%	2.66	3.5	n.s.
31. Participate, assist in administration of sacraments.	ALL	6	0.3	6	0.0	6	0.0	6	0.8	0	-1%	-1%	2.83	2.0	n.s.

*Appropriateness of task to category of personnel as determined by the National Advisory Committee.
**Level of significance for Chi-square computed on 2x3 tables comparing frequency of task performance by category of personnel.
n.s. indicates p value greater than .05.

4. Patient Need for Movement

Description of the Area

Tasks in this nursing area fall into two broad categories. The first, (a), may be characterized as "Assisting patient in movement;" in turn, this category may be further specified to involve: (1) assistance in movement into and out of bed, positioning on the bed, and walking (Tasks #34 through 39), and (2) the series of Sub-tasks #40.1-8, "Assist patient with therapeutic exercises." The second category, (b), "Moving the patient," can also be broken down into two parts: (1) moving the patient with use of equipment (#41-47); and (2) moving the patient without use of equipment (#34, 35).

Task #37 ("Assist patient to get in and out of bed") was the most frequent activity (85.4%, all personnel); Task #40.8, "Assist patient in Buerger's exercise" was the least frequent (0.8%, all personnel). (See Table 9.) Area B-4 ranked second among the 16 areas in terms of range of frequency (84.6%, four-tenths of a percentage point less than B-1). The mid-most task was #40.3, "Assist patient with range of motion," 25.1 percent, all personnel. With respect to the frequency of the median task, B-4 ranked ninth relative to the other areas.

Criticality scores varied from 2.83 (approximately "average" criticality) to 4.0 ("above average" criticality) with the median score falling at 3.56, or almost exactly mid-way between "average" and "above average." This is comparable with the median for Area B-1 ("Patient Protection"), and ranks fifth (versus third for B-1) on the distribution of median criticality scores for all areas.

In terms of differentiation by category of personnel, 12 of the 21 tasks comprising Area B-4 were judged to be appropriate to all personnel (#34-39, 41, 43-45 and 40.7-8); three of the remaining nine tasks were deemed the province of the RN (#40.4-6), and another three fell to the RN and LVN/LPN (#40.1-3); two were judged not to be nursing functions (#46, 47) and one (#42) was ambiguously defined, in part as a task not thought to be part of a nursing function, while the other part was seen to be the duty of all personnel.

As for the actual performance of these tasks, of the 12 activities rated as appropriate to all personnel, ten were significantly differentiated (at the level of .05 or less) across categories of personnel (#34-39, 40.7, 41, 43 and 45). The overall tendency was for more frequent performance by the LVN/LPN and Aide as opposed to the RN. Two tasks (#40.8 and 44), for which no statistical significance was found, conformed to this pattern. The bulk of these tasks fell in the category of b(1) and b(2) and were judged appropriate to all personnel despite a tendency to be differentiated toward performance by less skilled personnel.

In the judgment of the Advisory Committee, six of the eight tasks in the Series #40.1-8 (see Table 9-A), were appropriately the responsibility of either the RN alone, or the RN and LVN/LPN. Tasks #40.4-6 were in the latter category, and Tasks #40.1-3 in the former. Tasks assigned to the RN were differentiated, but in the direction of performance by the LVN/LPN and Aide ($p \leq .05$) and two of them were performed most frequently by the Aide (#40.5, "Assist with

Table 9. APPROPRIATE LEVEL, FREQUENCY OF TASK PERFORMANCE BY CATEGORY OF PERSONNEL, PERCENTAGE DIFFERENCE IN FREQUENCY OF TASK PERFORMANCE BETWEEN CATEGORIES OF PERSONNEL AND CRITICALITY WITHIN THE FUNCTIONAL AREA OF SAFETY AND COMFORT. B-4. Patient Need for Movement

Task	Level*	Frequency (Percent of personnel saying task is performed "daily," or "almost daily," or "several times a week.")								Percent Difference			Criticality		p**
		All Personnel (N=398)		Staff Nurse (N=137)		LVN/LPN (N=130)		Nurses Aide (N=131)		RN Versus LVN/LPN	RN Versus Aide	LVN Versus Aide	Score	Rank	
		Rank	Percent	Rank	Percent	Rank	Percent	Rank	Percent						
37. Assist patient to get in and out of bed.	ALL	1	85.4	2	72.3	1	92.3	1	92.4	-20%	-20%	0	3.33	15.25	.001
35. Turn patient.	ALL	2	83.2	1	73.0	2	90.0	3	87.0	-17%	-14%	+3%	3.33	15.25	.001
38. Assist patient to transfer from bed to chair.	ALL	3	79.6	5	64.2	3	89.2	4	86.3	-25%	-22%	+3%	3.5	13.5	.001
39. Assist patient in walking.	ALL	4	78.4	4	65.0	5	82.3	2	88.5	-17%	-24%	-7%	3.33	15.25	.001
34. Place patient in correct body alignment.	ALL	5	76.9	3	66.4	4	86.2	6	78.6	-20%	-13%	+7%	3.66	8.2	.001
46. Transport patient in wheelchair.	NONE	6	70.1	7	54.0	6	76.9	5	80.2	-23%	-26%	-3%	2.83	20.5	.001
36. Assist patient to dangle.	ALL	7	68.3	6	58.4	7	74.6	7	72.5	-17%	-15%	+2%	3.33	15.25	.01
47. Transport patient on stretcher.	NONE	8	50.8	8	48.2	8	59.2	8	45.0	-11%	+3%	+14%	2.83	20.5	n.s.
40.2 Assist patient in active exercise.	RN,LVN	9	33.2	9	30.7	9	43.8	9	25.2	-13%	+6%	+19%	3.66	8.2	.01
40.1 Assist patient in passive exercixe.	RN,LVN	10	27.1	10	25.5	10	33.8	11	22.1	-8%	+4%	+12%	3.66	8.2	n.s.
40.3 Assist patient in range of motion.	RN,LVN	11	25.1	11	20.4	11	31.5	10	23.7	-12%	-4%	+8%	3.66	8.2	n.s.
42. Set up and maintain traction. Set up: / Maintain:	NONE / ALL	12	10.1	13	3.6	12	16.2	14	10.7	-12%	-7%	+5%	4.0	1.33	.01
45. Apply and remove braces.	ALL	13	9.5	12	4.4	13	12.3	12	12.2	-8%	-8%	0	3.5	13.5	.05
40.4 Assist patient in preparation for crutch walking.	RN	14	8.5	14	2.9	14	11.5	13	11.5	-9%	-9%	0	3.66	8.2	.05
41. Use mechanical devices (Hoyer lift) to move patient.	ALL	15	5.5	16.5	1.5	17	5.4	15	9.9	-3%	-8%	-5%	3.16	19.0	.05
40.7 Assist patient following radical mastectomy.	ALL	16	5.3	16.5	1.5	16	6.2	16	8.4	-4%	-6%	-2%	4.0	1.33	.05
43. Operate Stryker and Foster Frames.	ALL	17	4.8	15	2.2	15	6.9	17.33	5.3	-5%	-3%	+2%	3.83	4.25	n.s.

*Appropriateness of task to category of personnel as determined by the National Advisory Committee.
**Level of significance for Chi-square computed on 2x3 tables comparing frequency of task performance by category of personnel.
n.s. indicates p value greater than .05.

Table 9.
(Continued)

APPROPRIATE LEVEL, FREQUENCY OF TASK PERFORMANCE BY CATEGORY OF PERSONNEL, PERCENTAGE DIFFERENCE IN FREQUENCY OF TASK PERFORMANCE BETWEEN CATEGORIES OF PERSONNEL AND CRITICALITY WITHIN THE FUNCTIONAL AREA OF SAFETY AND COMFORT: B-4. Patient Need for Movement

Task	Level*	Frequency (Percent of personnel saying task is performed "daily," or "almost daily," or "several times a week.")								Percent Difference			Criticality		p**
		All Personnel (N=398)		Staff Nurse (N=137)		LVN/LPN (N=130)		Nurses Aide (N=131)		RN Versus		LVN Versus			
		Rank	Percent	Rank	Percent	Rank	Percent	Rank	Percent	LVN/LPN	Aide	Aide	Score	Rank	
40.5 Assist patient in preparation for chest surgery.	RN	18.5	3.3	18.25	0.0	18.5	4.6	17.33	5.3	-5%	-5%	0	3.83	4.25	.05
40.6 Assist patient following amputation.	RN	18.5	3.3	18.25	0.0	18.5	4.6	17.33	5.3	-5%	-5%	0	3.83	4.25	.05
44. Operate circle beds.	ALL	20	2.3	18.25	0.0	20	3.1	20	3.8	-3%	-4%	-1%	4.0	1.33	n.s.
40.8 Assist patient in Buerger's exercise.	ALL	21	0.8	18.25	0.0	21	1.5	21	0.8	-2%	-1%	+1%	3.83	4.25	n.s.

*Appropriateness of task to category of personnel as determined by the National Advisory Committee.
**Level of significance for Chi-square computed on 2x3 tables comparing frequency of task performance by category of personnel.
n.s. indicates p value greater than .05.

therapeutic exercises preparatory to chest surgery," and #40.6," . . . following amputations.")

For the three tasks thought to be in the province of the RN and LVN/LPN, one (#40.2) was significantly differentiated ($p \leq .01$), with the LVN/LPN being the most frequent performer. The other two (#40.1, 40.3) were not significantly differentiated, but also displayed a tendency toward performance by the LVN/LPN. Of the two tasks deemed to be non-nursing functions, one (#47) was undifferentiated and the other (#46) was differentiated toward the LVN/LPN and Aide, with the Aide the most frequent performer ($p \leq .001$).

General Remarks

Of the 11 tasks above the mid-most task, slightly over one-half (6 of 11) fall into category a(1) as defined above. Two of the remaining five tasks are in category a(2); the rest fall into category b(1). It should be noted that six of the eight tasks of category a(2) are at or below the median in terms of frequency of performance by all personnel. That is, the specifically therapeutic activities in this sub-area tend to be performed relatively infrequently, i.e., are undertaken "daily" or "almost daily" by one-fourth or less of all personnel. The median criticality scores for the distribution of cases falling at or above the median task is 3.16; cases falling at or below the median task had a median criticality score of 3.60.

This suggests a tendency for the more critical tasks to be less frequently performed, although it must be pointed out that the range of criticality scores for the overall distribution is relatively narrow (a spread of 1.17 points, ranked 13.5 out of 16 areas). Concentration of more critical tasks in the bottom half of the overall distribution of frequency of performance might reflect the fact that six out of eight of the series of activities constituting category a(2) ("Assist patient with therapeutic activities") fall at or below the median of the overall distribution, i.e., the specifically therapeutic tasks discussed above. This series has a median of 3.68, ranging from 3.66 to 4.0 on the criticality scale, making it the most critical set of tasks in this area, in the judgment of the Advisory Committee. Five of these tasks have a frequency performance of 8.5 percent or less.

These findings, while only suggestive at this point, clearly underscore the fact that frequency of performance by itself is not indicative of curricular needs. Often, the most routine and least skilled activities occur most frequently. What is more significant is the pattern of performance by the three nursing occupations.

It is worth noting in this regard that the tasks deemed appropriate to all levels of personnel displayed a consistent pattern of differentiation toward the less skilled categories. More important is that those tasks judged to be the proper responsibility of the RN, or the RN and LVN/LPN, with one exception, were either more frequently performed by the less skilled category or categories, or showed no statistically significant difference in the frequency of performance across categories. This pattern held for all but one of the most critical tasks in the sub-area.

One inference that might be drawn is that, in the judgment of authoritative personnel in the hospitals surveyed, it was seen as appropriate that the

Table 9-A. APPROPRIATE LEVEL, FREQUENCY OF TASK PERFORMANCE BY CATEGORY OF PERSONNEL, PERCENTAGE DIFFERENCE IN FREQUENCY OF TASK PERFORMANCE BETWEEN CATEGORIES OF PERSONNEL AND CRITICALITY WITHIN THE FUNCTIONAL AREA OF SAFETY AND COMFORT: B-4. Patient Need for Movement (Sub-tasks)

Task	Level*	Frequency (Percent of personnel saying task is performed "daily," or "almost daily," or "several times a week.")								Percent Difference			Criticality		p**
		All Personnel (N=398)		Staff Nurse (N=137)		LVN/LPN (N=130)		Nurses Aide (N=131)		RN Versus		LVN Versus			
		Rank	Percent	Rank	Percent	Rank	Percent	Rank	Percent	LVN/LPN	Aide	Aide	Score	Rank	
40.0 Assist patient with therapeutic exercises:															
40.2 Active exercise.	RN,LVN	1	33.2	1	30.7	1	43.8	1	25.2	-13%	+6%	+19%	3.66	5.25	.01
40.1 Passive exercise.	RN,LVN	2	27.1	2	25.5	2	33.8	3	22.1	-8%	+4%	+12%	3.66	5.25	n.s.
40.3 Range of motion.	RN,LVN	3	25.1	3	20.4	3	31.5	2	23.7	-12%	-4%	+8%	3.66	5.25	n.s.
40.4 Preparatory to crutch walking.	RN	4	8.5	4	2.9	4	11.5	4	11.5	-9%	-9%	0	3.66	5.25	.05
40.7 Following radical mastectomy.	ALL	5	5.3	5	1.5	5	6.2	5	8.4	-4%	-6%	-2%	4.0	1.0	.05
40.5 Preparatory to chest surgery.	RN	6.5	3.3	6.33	0.0	6.5	4.6	6.5	5.3	-5%	-5%	0	3.83	2.33	.05
40.6 Following amputations.	RN	6.5	3.3	6.33	0.0	6.5	4.6	6.5	5.3	-5%	-5%	0	3.83	2.33	.05
40.8 Buerger's exercise.	ALL	8	0.8	6.33	0.0	8	1.5	8	0.8	-2%	-1%	+1%	3.83	2.33	n.s.

*Appropriateness of task to category of personnel as determined by the National Advisory Committee.
**Level of significance for Chi-square computed on 2x3 tables comparing frequency of task performance by category of personnel.
n.s. indicates p value greater than .05.

responsibility for many routine activities be placed on the LVN/LPN and Aide. An equally plausible inference is that this division of labor emerged from on-going adjustments of work activities in the hospital. An obvious consequence of such an arrangement, however it developed, is the freeing of the RN's time for other duties. Further, with respect to the finding that LVN/LPNs and Aides were often more frequently performing tasks judged to be the province of the RN or the RN and LVN/LPN, is the conclusion that judgments are being made in the hospitals that less trained persons are capable of carrying out many of these activities. The judgment by the Advisory Committee as to the appropriateness of a given task for one or another category of personnel, and the estimation of criticality of particular tasks, represent the considered opinion of experts. Discrepancies between the expectations of experts and everyday practice in the hospital may signal the need for revision of these practices or a reconsideration of the basis of experts' opinion. Such inferences as the above, and their implications for curriculum development, must be assessed in the light of the examination of all the functional areas.

Table 10. APPROPRIATE LEVEL, FREQUENCY OF TASK PERFORMANCE BY CATEGORY OF PERSONNEL, PERCENTAGE DIFFERENCE IN FREQUENCY OF TASK PERFORMANCE BETWEEN CATEGORIES OF PERSONNEL AND CRITICALITY WITHIN THE FUNCTIONAL AREA OF NUTRITION AND ELIMINATION: C-1. Patient Need for Food and Fluids

Task	Level*	Frequency (Percent of personnel saying task is performed "daily," or "almost daily," or "several times a week.")								Percent Difference			Criticality		p**
		All Personnel (N=398)		Staff Nurse (N=137)		LVN/LPN (N=130)		Nurses Aide (N=131)		RN Versus		LVN Versus			
		Rank	Percent	Rank	Percent	Rank	Percent	Rank	Percent	LVN/LPN	Aide	Aide	Score	Rank	
50.1 Position patient for meals.	ALL	1	78.1	4	62.8	2	85.4	1	87.0	-22%	-24%	-2%	2.33	11.5	.001
54.1 Prepare and give between-meal nourishment of liquids, e.g., water, juice, coffee.	ALL	2	76.9	2.5	65.0	1	86.2	3.5	80.2	-21%	-15%	+6%	2.16	13.5	.001
50.2 Prepare food so patient may assist self.	ALL	3	73.4	6	58.4	4	79.2	2	83.2	-21%	-25%	-4%	2.33	11.5	.001
55. Observe, measure, and record food and fluid intake.	ALL	4	73.1	5	60.6	3	84.6	6	74.8	-24%	-14%	+10%	3.16	7.0	.001
49.3 Collect food trays.	NONE	5	67.6	8	47.4	5	76.2	3.5	80.2	-29%	-33%	-4%	1.16	18.0	.001
49.2 Serve food trays.	NONE	6	66.8	7	49.6	6	75.4	5	76.3	-25%	-26%	-1%	1.83	15.5	.001
54.2 Prepare and give solid foods, e.g., pudding, crackers, toast.	ALL	7	55.8	9	43.8	7	65.4	8	58.8	-21%	-15%	+6%	2.16	13.5	.01
51.3 Feed adult patients.	ALL	8	51.5	12	28.5	8	57.7	7	69.5	-29%	-41%	-12%	2.66	10.0	.001
53.3 Discontinue intravenous fluids.	RN,LVN	9	44.2	2.5	65.0	9	47.7	10.5	19.1	+17%	+46%	+29%	3.0	8.0	.001
53.2 Regulate intravenous fluids.	RN	10	41.7	1	67.2	10	42.3	12.33	14.5	+25%	+52%	+27%	4.16	2.33	.001
48. Ask patient about cultural, religious, personal preferences for food.	NONE	11	35.4	11	35.0	11	39.2	9	32.1	-4%	+3%	+7%	1.83	15.5	n.s.
51.1 Assist infant patients to eat.	ALL	12	16.6	13	11.7	12	19.2	10.5	19.1	-7%	-7%	0	3.33	6.0	n.s.
53.1 Start intravenous fluids.	RN	13	15.1	10	42.3	18	0.0	16.5	1.5	+42%	+40%	-2%	1.83	1.0	.001
49.1 Put food on trays.	NONE	14	13.8	14	10.9	13	16.2	12.33	14.5	-5%	-4%	+1%	1.5	17.0	n.s.
51.2 Feed patient (children).	ALL	15	12.1	16.5	8.0	15	13.8	12.33	14.5	-6%	-7%	-1%	2.83	9.0	n.s.
52.1 Administer nasogastric.	RN,LVN	16	9.3	15	8.8	14	14.6	15	4.6	-6%	+4%	+10%	4.16	2.33	.05
52.2 Administer gavage.	RN,LVN	17	5.0	16.5	8.0	17	5.4	16.5	1.5	+3%	+6%	+3%	4.16	2.33	n.s.
52.3 Administer gastrostomy.	RN,LVN	18	4.8	18	3.6	16	10.0	18	0.8	-6%	+3%	+9%	4.00	5.0	.01

*Appropriateness of task to category of personnel as determined by the National Advisory Committee.
**Level of significance for Chi-square computed on 2x3 tables comparing frequency of task performance by category of personnel.
n.s. indicates p value greater than .05.

C. Nutrition and Elimination

1. Patient Need for Food and Fluids

Description of the Area

The 18 tasks comprising this nursing area can be classified into two categories: (a) "Activity involving normal mouth feeding" (#48, 49.1-3, 50.1-2; 51.1-3, 54.1-2, 55); and (b) "Activity involving special feedings," (1) Intravenous (#51.1-3), and (2) Other (#52.1-3). The first category covers the work of serving and collecting food trays, preparing between-meal nourishment, hand-feeding patients, and measuring intake. The second category includes intravenous feeding and such tasks as administering a gavage (see Tables 10 and 10-A).

The most frequently occurring task is #50.1, "Position patient for meals" (78.1%, all personnel); the least frequent is #52.3, "Administer gastrostomy" (4.8%, all personnel). The range of frequency of task performance is 73.3 percent, fifth highest of the several areas. The mid-most task is located between #53.3, "Discontinue intravenous feedings," (44.2%, all personnel) and #53.2, "Regulate intravenous fluids" (41.7%, all personnel). The frequency of the median task is 43.9 percent, also ranked fifth overall. In terms of criticality, the median score was 2.84 (close to "average" criticality) with a range of 1.16 (#49.3, "Collect food trays") to 4.83 (#53.1, "Start intravenous fluids"). It should be noted that the spread of criticality scores in this sub-area is the widest of any area. The median criticality score ranked 10.5 out of 16.

Considering the median criticality scores for tasks falling above and below the mid-most task point, the most critical tasks again tend to be the least frequently performed. Frequency of performance for all personnel ranges from 78.1 percent to 44.2 percent above the mid-most task, and 41.7 percent to 4.8 percent below that point. The median criticality score for the former is 2.19 ("moderate" criticality) and 3.76 (approaching "above average" criticality) for the latter. Five of the eight tasks below the mid-most task point are performed with the frequency of 15.1 percent or less by all personnel.

Nine of the 18 tasks in this area were judged to be appropriate to all personnel (#49.3, 50.1-2, 51.1-3, 54.1-2, 55); four were deemed the responsibility of the RN and LVN/LPN (#52.1-3 and 53.3); two were thought to be the province of the RN (#53.1-2); and three tasks were designated as non-nursing functions (#49.1-2 and 48). Seven of the nine tasks judged appropriate to all personnel displayed the familiar pattern of differentiation toward the lower skill levels (significant at the .01 level or less), three being performed most frequently by the LVN/LPN (#51.3, 54.1 and 55), and two by the Aide (#49.3 and 51.3); the remaining two of the differentiated tasks shared roughly equal frequency of performance by the LVN/LPN and Aide (#50.1-2). Two tasks (#51.1-2) conformed in practice to the expectations of the Advisory Committee. It may be noted that these nine cases had a median criticality score of 2.36 (slightly more than "moderate" criticality).

With respect to the four tasks deemed appropriate to the RN and LVN/LPN, #53.3 conformed to the judgment of the Advisory Committee in actual practice

Table 10-A. APPROPRIATE LEVEL, FREQUENCY OF TASK PERFORMANCE BY CATEGORY OF PERSONNEL, PERCENTAGE DIFFERENCE IN FREQUENCY OF TASK PERFORMANCE BETWEEN CATEGORIES OF PERSONNEL AND CRITICALITY WITHIN THE FUNCTIONAL AREA OF NUTRITION AND ELIMINATION: C-1. Patient Need for Food and Fluids (Sub-tasks)

Task	Level*	Frequency (Percent of personnel saying task is performed "daily," or "almost daily," or "several times a week:")								Percent Difference			Criticality		p**
		All Personnel (N=398)		Staff Nurse (N=137)		LVN/LPN (N=130)		Nurses Aide (N=131)		RN Versus		LVN Versus			
		Rank	Percent	Rank	Percent	Rank	Percent	Rank	Percent	LVN/LPN	Aide	Aide	Score	Rank	
49.0 Serve food to patients:															
49.3 Collect trays.	NONE	1	67.6	2	47.4	1	76.2	1	80.2	-29%	-33%	-4%	1.16	3.0	.001
49.2 Serve trays.	NONE	2	66.8	1	49.6	2	75.4	2	76.3	-25%	-26%	-1%	1.83	1.0	.001
49.1 Put food on trays.	NONE	3	13.8	3	10.9	3	16.2	3	14.5	-5%	-4%	+1%	1.5	2.0	n.s.
50.0 Assist patient to eat:															
50.1 Position patient for meals.	ALL	1	78.1	1	62.8	1	85.4	1	87.0	-22%	-24%	-2%	2.33	1.5	.001
50.2 Prepare food so patient may assist self.	ALL	2	73.4	2	58.4	2	79.2	2	83.2	-21%	-25%	-4%	2.33	1.5	.001
51.0 Feed patient:															
51.3 Adults.	ALL	1	51.5	1	28.5	1	57.7	1	69.5	-29%	-41%	-12%	2.66	3.0	.001
51.1 Infants.	ALL	2	16.6	2	11.7	2	19.2	2	19.1	-7%	-7%	0	3.33	1.0	n.s.
51.2 Children.	ALL	3	12.1	3	8.0	3	13.8	3	14.5	-6%	-7%	-1%	2.83	2.0	n.s.
52.0 Administer tube feedings:															
52.1 Nasogastric	RN,LVN	1	9.3	1	8.8	1	14.6	1	4.6	-6%	+4%	+10%	4.16	1.5	.05
52.2 Gavage.	RN,LVN	2	5.0	2	8.0	3	5.4	2	1.5	+3%	+6%	+3%	4.16	1.5	n.s.
52.3 Gastrostomy.	RN,LVN	3	4.8	3	3.6	2	10.0	3	0.8	-6%	+3%	+9%	4.0	3.0	.01
53.0 Administer intravenous fluids:															
53.3 Discontinue intravenous fluids.	RN,LVN	1	44.2	2	65.0	1	47.7	1	19.1	+17%	+46%	+29%	3.0	3.0	.001
53.2 Regulate intravenous fluids.	RN	2	41.7	1	67.2	2	42.3	2	14.5	+25%	+52%	+27%	4.16	2.0	.001
53.1 Start intravenous fluids.	RN	3	15.1	3	42.3	3	0.0	3	1.5	+42%	+40%	-2%	4.83	1.0	.001

*Appropriateness of task to category of personnel as determined by the National Advisory Committee.
**Level of significance for Chi-square computed on 2x3 tables comparing frequency of task performance by category of personnel.
n.s. indicates p value greater than .05.

Table 10-A. (Continued)

APPROPRIATE LEVEL, FREQUENCY OF TASK PERFORMANCE BY CATEGORY OF PERSONNEL, PERCENTAGE DIFFERENCE IN FREQUENCY OF TASK PERFORMANCE BETWEEN CATEGORIES OF PERSONNEL AND CRITICALITY WITHIN THE FUNCTIONAL AREA OF NUTRITION AND ELIMINATION: C-1. Patient Need for Food and Fluids (Sub-tasks)

Task	Level*	Frequency (Percent of personnel saying task is performed "daily," or "almost daily," or "several times a week.")								Percent Difference			Criticality		p**
		All Personnel (N=398)		Staff Nurse (N=137)		LVN/LPN (N=130)		Nurses Aide (N=131)		RN Versus LVN/LPN	RN Versus Aide	LVN Versus Aide	Score	Rank	
		Rank	Percent	Rank	Percent	Rank	Percent	Rank	Percent						
54.0 Prepare and give between-meal nourishment:															
54.1 Liquids, e.g., water, juice, coffee.	ALL	1	76.9	1	65.0	1	86.2	1	80.2	-21%	-15%	+6%	2.16	1.5	.001
54.2 Solid foods, e.g., pudding, crackers, toast.	ALL	2	55.8	2	43.8	2	65.4	2	58.8	-21%	-15%	+6%	2.16	1.5	.01

*Appropriateness of task to category of personnel as determined by the National Advisory Committee.
**Level of significance for Chi-square computed on 2x3 tables comparing frequency of task performance by category of personnel.
n.s. indicates p value greater than .05.

($p \leq .001$), #52.2 displayed no differentiation, and the remaining two, #52.1 and 52.3, were most frequently performed by the LVN/LPN ($p \leq .05$ and .01, respectively). The median criticality score for these four tasks was 3.76. Each of the two tasks seen as the responsibility of the RN was most frequently performed by personnel in this category ($p \leq .001$). Task #53.1, "Start intravenous fluids," was, in fact, all but exclusively performed by the RN, with 1.5 percent of the Aides reporting participation on a frequent basis. The criticality scores for the two tasks were 4.16 for #53.2 and 4.83 for #53.1. Two of the three tasks considered not to be nursing functions were not differentiated (#48, 49.1), and the remaining task (#49.2) was differentiated toward the LVN/LPN and Aide. All three tasks were rated low in criticality.

General Remarks

The relatively high range of frequency of performance, the highest range of criticality scores, the fairly low median criticality, and the variation of criticality above and below the median of the distribution of frequency of performance require comment. What appears to be operating is the heterogeneity of the tasks grouped under this sub-area. That is, relatively routine and unspecialized activities are included with quite specialized and infrequent tasks, resulting in the characteristics summarized above. For example, the tasks positioned above the median of the distribution of frequency of performance for this area include such activities as preparing and giving between-meal nourishment, collecting food trays, and preparing and giving solid foods. Tasks below the median include starting and regulating intravenous fluids and administering gavages, nasogastrics and gastrostomy. Hence, there are obvious differences in the skills required for the competent performance of one set of tasks as opposed to another set.

In terms of curriculum development, the routine of feeding patients is far less important than the pattern of task performance for the rather critical tasks involving administration and regulation of intravenous fluids and other procedures involving the introduction of fluids into the body in other ways than the normal process of eating and drinking. For example, #53.2, "Regulate intravenous fluids," while performed most frequently by the RN (in accordance with the judgment of the Advisory Committee) is also performed with significant frequency by the LVN/LPN and, although much less frequently, by the Aide. That 14.5 percent of the Aides do report performing this task frequently suggests that some consideration needs to be given to the training requirements of this least skilled occupational group. In the concluding chapter of this report, means of specifying the conditions under which less skilled personnel should receive more specialized training will be discussed. It will be pointed out that certain types of facilities may possibly place greater responsibility on occupations below the level of the RN, and if this is so, it poses a challenge to curriculum planners. In any event, the finding that less skilled occupations are called upon to perform tasks beyond the scope of their formally specified competence requires close scrutiny.

Table 11. APPROPRIATE LEVEL, FREQUENCY OF TASK PERFORMANCE BY CATEGORY OF PERSONNEL, PERCENTAGE DIFFERENCE IN FREQUENCY OF TASK PERFORMANCE BETWEEN CATEGORIES OF PERSONNEL AND CRITICALITY WITHIN THE FUNCTIONAL AREA OF NUTRITION AND ELIMINATION: C-2. Patient Need for Elimination

Task	Level*	Frequency (Percent of personnel saying task is performed "daily," or "almost daily," or "several times a week.")								Percent Difference			Criticality		p**
		All Personnel (N=398)		Staff Nurse (N=137)		LVN/LPN (N=130)		Nurses Aide (N=131)		RN Versus LVN/LPN	RN Versus Aide	LVN Versus Aide	Score	Rank	
		Rank	Percent	Rank	Percent	Rank	Percent	Rank	Percent						
56.1 Assist patient in using bedpan.	ALL	1	83.4	1	68.6	1	88.5	1.5	93.9	+20%	-25%	-5%	2.33	5.5	.001
56.4 Assist patient in going to bathroom.	ALL	2	80.9	2	62.0	2	87.7	1.5	93.9	-26%	-32%	-6%	2.66	3.5	.001
58. Observe, measure, and record output.	ALL	3	77.6	3	61.3	3	86.9	3	85.5	-26%	-25%	+1%	2.83	2.0	.001
56.2 Assist patient in using urinal.	ALL	4	62.1	4	46.7	4	69.2	4	71.0	-22%	-24%	-2%	2.33	5.5	.001
56.3 Assist patient in using bedside commode.	ALL	5	51.0	5	32.1	5	56.2	5	65.6	-24%	-34%	-10%	2.66	3.5	.001
57. Remove fecal impactions.	RN,LVN	6	8.0	6	2.9	6	8.5	6	13.0	-6%	-10%	-4%	3.33	1.0	.05

*Appropriateness of task to category of personnel as determined by the National Advisory Committee.
**Level of significance for Chi-square computed on 2x3 tables comparing frequency of task performance by category of personnel.
n.s. indicates p value greater than .05.

2. Patient Need for Elimination

Description of the Area

Six tasks comprise this nursing area of Functional Area C. Four of the six make up the Task Series #51.1-4, "Assist patient in elimination procedures." The remaining two tasks (#57, 58) involve "Other elimination procedures."

In terms of frequency of occurrence, #56.1, "Assist patient in using bed pan,"is first (83.4%, all personnel); #57, "Remove . . . impactions," is last (8.0%, all personnel). (See Tables 11 and 11-A.) This area ranks fourth among the 16 areas with a range of frequency of performance of 75.4 percent. It should be noted that five of the six tasks are above 50 percent in terms of frequency of performance by all personnel. The mid-most task point falls between #58 ("Observe, measure and record output," 77.6%, all personnel) and #56.2 ("Assist the patient in using urinal," 62.1%, all personnel). The median task frequency in this case is 69.3 percent, second highest overall. Task #57, "Remove fecal impactions," was the most critical task (3.33); #56.1 and #56.2 ("Assist patient in using bed pan" and " . . . in going to bathroom") were the least critical, sharing scores of 2.33. The median criticality score was 2.84, ranking 10.5 overall. Task #57 was the least frequently performed activity in the sub-area.

Five of the six tasks were deemed by the Advisory Committee to be appropriate to all nursing personnel; Task #57 was thought to be the responsibility of the RN and LVN/LPN. All tasks were significantly differentiated in practice; the LVN/LPN and Aide were the more frequent performers. Routine attention to the elimination needs of patients, including the removal of fecal impactions, is apparently the main responsibility of the LVN/LPN and Aide.

General Remarks

The tasks in this area, taken together, were performed relatively frequently. Criticality (assessed in terms of median criticality score) was relatively low. The majority of tasks were deemed to be appropriate to all personnel, yet in practice, the division of labor was fairly well defined, the LVN/LPN and the Aide predominating in terms of frequency of performance. The implications of this type of pattern will be discussed in the concluding section of this report.

3. Patient Need for Oxygen Transport and Exchange

Description of the Area

The 18 tasks organized around "Patient Need for Oxygen Transport and Exchange" are, by and large, the most specialized activities that have been encountered in this report at this point. They may be classified as follows: (a) eight tasks involve the administration of oxygen to the patient (#61, 62.1-4, 63, 66, 67); (b) two tasks require rendering assistance to the patient in oxygen procedures (#59, 60); (c) five tasks involve clearing the patient's oxygen passages (#64.1-3, 65.1-2); (d) three tasks require administering blood (#68.1-3).

Table 11-A. APPROPRIATE LEVEL, FREQUENCY OF TASK PERFORMANCE BY CATEGORY OF PERSONNEL, PERCENTAGE DIFFERENCE IN FREQUENCY OF TASK PERFORMANCE BETWEEN CATEGORIES OF PERSONNEL AND CRITICALITY WITHIN THE FUNCTIONAL AREA OF NUTRITION AND ELIMINATION: C-2. Patient Need for Elimination (Sub-tasks)

Task	Level	Frequency (Percent of personnel saying task is performed "daily," or "almost daily," or "several times a week.")								Percent Difference			Criticality		p**
		All Personnel (N=398)		Staff Nurse (N=137)		LVN/LPN (N=130)		Nurses Aide (N=131)		RN Versus		LVN Versus			
		Rank	Percent	Rank	Percent	Rank	Percent	Rank	Percent	LVN/LPN	Aide	Aide	Score	Rank	
56. Assist patient in eliminating urine and solid wastes:															
56.1 Assist patient in using bedpan.	ALL	1	83.4	1	68.6	1	88.5	1.5	93.9	+20%	-25%	-5%	2.33	3.5	.001
56.4 Assist patient in going to bathroom.	ALL	2	80.9	2	62.0	2	87.7	1.5	93.9	-26%	-32%	-6%	2.66	1.5	.001
56.2 Assist patient in using urinal.	ALL	3	62.1	3	46.7	3	69.2	3	71.0	-22%	-24%	-2%	2.33	3.5	.001
56.3 Assist patient in using bedside commode.	ALL	4	51.0	4	32.1	4	56.2	4	65.6	-24%	-34%	-10%	2.66	1.5	.001

*Appropriateness of task to category of personnel as determined by the National Advisory Committee.
**Level of significance for Chi-square computed on 2x3 tables comparing frequency of task performance by category of personnel.
n.s. indicates p value greater than .05.

The most frequently occurring task is #59, "Assist the patient to turn, cough, deep breathe" (60.8%, all personnel). (See Tables 12 and 12-A.) The least frequent is #61, "Give artificial respiration" (0.5%, all personnel). The range of frequency of performance is 60.3 percent, ranked ninth of 16. The median task in terms of frequency of performance falls between #67, "Set up and regulate humidifier" (9.5%, all personnel), and #62.4, "Administer oxygen, positive pressure" (9.3%, all personnel). The frequency of the median task is 9.4 percent, next to the bottom of the distribution of median task frequency for the 16 areas covered by the task survey.

The specialized character of tasks in this sub-area is reflected in the distribution of criticality scores, which range from 4.83 (#68.1, "Start blood transfusion"), to 3.16 (#59, "Assist patient to turn, cough, deep breathe;" #68.3, "Discontinue blood transfusion"), or from "highly critical" to "average" on the criticality scale. The median criticality score was 3.71, close to "above average" criticality. Area C-3 ranked second in the overall distribution of median criticality scores.

It is worth noting that the median criticality score for tasks above the median for the overall frequency distribution of tasks was 3.38; the median criticality score for those tasks below the median tasks was 4.09. Again, this points to the tendency for the more critical tasks to be performed less frequently. It has already been pointed out that, on the whole, almost all of the tasks in this area were performed relatively infrequently, making the contrast in criticality between the two halves of the distribution of tasks even more striking.

Only three of the 18 tasks in this sub-area were thought by the Advisory Committee to be appropriate to all personnel (#59, 61, 67). Three were deemed the responsibility of the RN alone (#63, 64.3, 68.1). The remaining 12 were assigned by the Advisory Committee to the RN and the LVN/LPN jointly (#60, 62.1-4, 64.1-2, 65.1-2, 66, 68.2-3).

Of the three tasks appropriate to all personnel, two (#61 and 67) were clearly undifferentiated. (It should be noted that Task #61 was infrequently performed.) Task #59 showed a slight tendency to more frequent performance by the LVN/LPN. None of the differences in frequency of performance between the RN, LVN/LPN and Aide were statistically significant.

One of the three tasks that were judged to be the sole province of the RN was, in fact, exclusively performed by the RN--Task #68.1, "Start blood transfusion." This task, incidentally, was accorded the highest criticality score (4.83) of any in this sub-area. However, Task #63 ("Set up and regulate oxygen equipment") and #64.3 ("Suction patient's trachea") showed no statistically significant difference in frequency of performance between categories of personnel. The former had a criticality of 3.5, which ranked 12.2 out of 18; the latter was assigned a score of 4.33, third highest in criticality.

For the 12 tasks judged to be the joint domain of the RN and LVN/LPN, three tasks were actually differentiated this way in practice (#62.4, 64.1-2). These tasks were scored 4.0, 3.5 and 3.66 in criticality, respectively. Two tasks, #68.2-3, were performed most frequently by the RN; #68.2 ("Regulate blood transfusion") had a criticality score of 4.16; and #68.3 ("Discontinue

Table 12. APPROPRIATE LEVEL, FREQUENCY OF TASK PERFORMANCE BY CATEGORY OF PERSONNEL, PERCENTAGE DIFFERENCE IN FREQUENCY OF TASK PERFORMANCE BETWEEN CATEGORIES OF PERSONNEL AND CRITICALITY WITHIN THE FUNCTIONAL AREA OF NUTRITION AND ELIMINATION: C-3. Patient Need for Oxygen Transport and Exchange

Task	Level*	Frequency (Percent of personnel saying task is performed "daily," or "almost daily," or "several times a week.")								Percent Difference			Criticality		p**
		All Personnel (N=398)		Staff Nurse (N=137)		LVN/LPN (N=130)		Nurses Aide (N=131)		RN Versus		LVN Versus			
		Rank	Percent	Rank	Percent	Rank	Percent	Rank	Percent	LVN/LPN	Aide	Aide	Score	Rank	
59. Assist patient to turn, cough, deep breathe.	ALL	1	60.8	1	58.4	1	68.5	1	55.7	-11%	+2%	+13%	3.16	17.5	n.s.
62.2 Administer oxygen mask.	RN,LVN	2	22.4	6	19.7	2	27.7	2	19.8	-8%	0	+8%	3.5	12.2	n.s.
62.1 Administer oxygen catheter.	RN,LVN	3	20.6	7	19.0	3	26.2	3	16.8	-7%	+2%	+9%	3.83	8.0	n.s.
63. Set up and regulate oxygen equipment.	RN	4	18.1	8	18.2	5	20.0	4	16.0	-2%	+2%	+4%	3.5	12.2	n.s.
64.2 Suction patient's throat passage.	RN,LVN	5	16.8	4.5	21.2	4	21.5	7.5	7.6	-1%	-13%	+14%	3.66	9.33	.01
64.1 Suction patient's nose passage.	RN,LVN	6	15.1	4.5	21.2	6	16.2	7.5	7.6	+5%	+13%	+8%	3.5	12.2	.01
68.3 Discontinue blood transfusion.	RN,LVN	7	13.1	2	24.1	10.5	10.8	13.33	3.8	+13%	+20%	+7%	3.16	17.5	.001
68.2 Regulate blood transfusion.	RN,LVN	8	11.3	3	21.9	12	9.2	16	2.3	+13%	+20%	+7%	4.16	4.33	.001
67. Set up and regulate humidifier.	ALL	9	9.5	12	7.3	9	11.5	5	9.9	-5%	-3%	+2%	3.5	12.2	n.s.
62.4 Administer oxygen: positive pressure.	RN,LVN	10	9.3	11	10.9	8	13.1	13.33	3.8	-2%	+7%	+9%	4.0	7.0	.05
60. Assist patient with postural drainage.	RN,LVN	11	9.0	13	4.4	7	13.8	6	9.2	-10%	-5%	+5%	3.66	9.33	.05
64.3 Suction patient's trachea.	RN	12	8.8	10	11.7	13.5	8.5	11	6.1	+3%	+6%	+3%	4.33	3.0	n.s.
65.1 Suction patient's tracheotomy.	RN,LVN	13	7.0	14	3.6	10.5	10.8	9.5	6.9	-4%	-3%	+4%	4.16	4.33	n.s.
65.2 Remove and clean inner cannula of trachea.	RN,LVN	14	5.5	15.5	2.9	13.5	8.5	12	5.3	-6%	-2%	+4%	4.16	4.33	n.s.
66. Set up and regulate croupette.	RN,LVN	15	5.0	17	1.5	15	6.9	9.5	6.9	-5%	-5%	0	3.5	12.2	n.s.
68.1 Start blood transfusion.	RN	16	4.5	9	13.1	17.5	0.0	18	0.0	+13%	+13%	0	4.83	1.0	.001
62.3 Administer oxygen tent.	RN,LVN	17	4.3	15.5	2.9	16	6.2	13.33	3.8	-3%	-1%	+2%	3.66	9.33	n.s.
61. Give artificial respiration.	ALL	18	0.5	18	0.7	17.5	0.0	17	0.8	+1%	0	-1%	4.66	2.0	n.s.

*Appropriateness of task to category of personnel as determined by the National Advisory Committee.
**Level of significance for Chi-square computed on 2x3 tables comparing frequency of task performance by category of personnel.
n.s. indicates p value greater than .05.

blood transfusion") had a criticality score of 3.16. The other task in this series (#68.1, "Start blood transfusion") was exclusively performed by the RN.

Six of the 12 tasks showed no significant differences in frequency performance by category of personnel (#62.1-3, 65.1-2, 66), although for all except #62.3, there was a tendency for the LVN/LPN to be the most frequent performer. These six tasks range from 3.5 to 4.6 in terms of criticality.

The remaining task, #66 ("Set up and regulate croupette"), was significantly differentiated toward more frequent performance by the LVN/LPN and Aide ($p \leq .05$). This task had a criticality score of 3.5.

General Remarks

It should be pointed out, to begin with, that apart from Task #59, all other tasks are performed relatively infrequently. Second most frequent task, #62.2, is reported by 22.4 percent of all personnel as performed "daily" or "almost daily." Obviously, the performance of rather specialized tasks, such as those involving the administration of oxygen and blood, is a function of the demand exerted by the patient's condition and the medical and surgical treatment of that condition. Hence, overall frequency in the performance of specialized tasks is bound to be low, relative to the more routine duties which must be performed for all patients every day.

Of direct interest to curriculum formation, eight tasks thought to be the responsibility of the RN and LVN/LPN were, by and large, performed with roughly equivalent frequency by all three nursing occupations. For example, there were no statistically significant differences in frequency of performance by category of personnel for such tasks as administering oxygen catheters, suctioning the patient's trachea or tracheotomy or administering oxygen tents. The same tentative conclusions may be drawn here as were drawn in the discussion of C-1; for some specialized tasks, less skilled categories (such as the Aide) share these duties in roughly equal amounts with the higher skilled categories. Hence, whatever formal definition may exist of the responsibilities of these occupations, in practice the professional boundaries between RNs, LVN/LPNs and Aides are permeable, at least for some tasks. To the extent that further analysis can establish this fact, curricula oriented toward serving the actual needs of personnel in hospital settings may have to be shaped accordingly.

Table 12-A. APPROPRIATE LEVEL, FREQUENCY OF TASK PERFORMANCE BY CATEGORY OF PERSONNEL, PERCENTAGE DIFFERENCE IN FREQUENCY OF TASK PERFORMANCE BETWEEN CATEGORIES OF PERSONNEL AND CRITICALITY WITHIN THE FUNCTIONAL AREA OF NUTRITION AND ELIMINATION: C-3. Patient Need for Oxygen Transport and Exchange (Sub-tasks)

Task	Level*	Frequency (Percent of personnel saying task is performed "daily," or "almost daily," or "several times a week.") All Personnel (N=398) Rank	All Personnel (N=398) Percent	Staff Nurse (N=137) Rank	Staff Nurse (N=137) Percent	LVN/LPN (N=130) Rank	LVN/LPN (N=130) Percent	Nurses Aide (N=131) Rank	Nurses Aide (N=131) Percent	Percent Difference: RN Versus LVN/LPN	Percent Difference: RN Versus Aide	Percent Difference: LVN Versus Aide	Criticality Score	Criticality Rank	p**
62.0 Administer oxygen:															
62.2 Mask.	RN,LVN	1	22.4	1	19.7	1	27.7	1	19.8	-8%	0	+8%	3.5	4.0	n.s.
62.1 Catheter.	RN,LVN	2	20.6	2	19.0	2	26.2	2	16.8	-7%	+2%	+9%	3.83	2.0	n.s.
62.4 Postive pressure.	RN,LVN	3	9.3	3	10.9	3	13.1	3.5	3.8	-2%	+7%	+9%	4.0	1.0	.05
62.3 Tent.	RN,LVN	4	4.3	4	2.9	4	6.2	3.5	3.8	-3%	-1%	+2%	3.66	3.0	n.s.
64.0 Suction patient's respiratory passages:															
64.2 Throat.	RN,LVN	1	16.8	1.5	21.2	1	21.5	1.5	7.6	-1%	+13%	+14%	3.66	2.0	.01
64.1 Nose.	RN,LVN	2	15.1	1.5	21.2	2	16.2	1.5	7.6	+5%	+13%	+8%	3.5	3.0	.01
64.3 Trachea.	RN	3	8.8	3	11.7	3	8.5	3	6.1	+3%	+6%	+3%	4.33	1.0	n.s.
65.0 Care for patient's tracheotomy:															
65.1 Suction patient's tracheotomy.	RN,LVN	1	7.0	1	3.6	1	10.8	1	6.9	-4%	-3%	+4%	4.16	1.5	n.s.
65.2 Remove and clean inner cannula of tracheotomy.	RN,LVN	2	5.5	2	2.9	2	8.5	2	5.3	-6%	-2%	+4%	4.16	1.5	n.s.
68.0 Administer blood transfusions:															
68.3 Discontinue blood transfusion.	RN,LVN	1	13.1	1	24.1	1	10.8	1	3.8	+13%	+20%	+7%	3.16	3.0	.001
68.2 Regulate blood transfusion.	RN,LVN	2	11.3	2	21.9	2	9.2	2	2.3	+13%	+20%	+7%	4.16	2.0	.001
68.1 Start blood transfusion.	RN	3	4.5	3	13.1	3	0.0	3	0.0	+13%	+13%	0	4.83	1.0	.001

*Appropriateness of task to category of personnel as determined by the National Advisory Committee.
**Level of significance for Chi-square computed on 2x3 tables comparing frequency of task performance by category of personnel.
n.s. indicates p value greater than .05.

D. Treatments, Procedures, Medications and Diagnostic Activities

1. Treatments and Procedures

Description of the Area

The 31 tasks of the "Treatment and Procedures" nursing area of Functional Area D may be classifed into five categories: (a) "Drainage and irrigation" (#69.1-7, 71-76); (b) "Assist and apply bandages" (#78.1-5, 79); (c) "Assist in rectal, vaginal or proctoscopic procedures" (#71.1-5); (d) "Instill solutions" (#70.1-5); and (e) "Assist with somatic therapies" (#80, 81).

Task #74 ("Empty drainage bottles and bags") is the most frequently occurring task (62.1%, all personnel) and Task #81 ("Apply defibrillator") is the least frequent (0.5%, all personnel). (See Tables 13, 13-A.) The range of frequency is 61.6 percent,ranked 8 out of 16. The mid-most task is #78.4, "Assist with and/or apply roller bandages" (16.1%, all personnel), which ranks 13th in the distribution of median task frequency. This reflects the fact that in terms of frequency of performance the gradient is rather sharp. For tasks at or below the mid-most task the range is 16.1 percent to 0.5 percent, that is, one-half of the tasks in the sub-area are reported by less than 17 percent of personnel to be performed "daily" or "almost daily." As was noted for Area C-3, specialized tasks represented here are tied to the demands of the patients' conditions, and hence are less frequent than routine activities performed for any patient.

The criticality of tasks in this sub-area is roughly equivalent to those in C-3. The most critical task was #81, "Apply defibrillator," to which score 4.83 (close to "highly critical") was assigned. The least critical tasks were #69.1-3, 77.1-2 and 77.4, all of which were scored 2.16 (approximately "moderate" criticality). The median criticality score for the 31 tasks was 3.16 ("average"), ranked seventh overall.

When the 31 tasks are dichotomized into distributions above and below the mid-most task (including in each the mid-most task itself), a familiar pattern emerges. The median criticality score for the 16 tasks at or above the mid-most task is 2.68. These tasks range from 62.1 percent to 16.1 percent in terms of frequency of performance. For tasks at or below the mid-most task, the median criticality score is 3.32. These tasks range from 16.1 percent to 0.5 percent in terms of frequency of performance. Again, the least frequently performed task tended to be the one rated the most critical by the Advisory Committee. This pattern is even more pronounced when the top eight, the middle 15 and the bottom eight tasks, in terms of frequency, are considered. The criticality scores for these groupings are, respectively, 2.76, 3.14 and 3.76.

Similar to C-3, a large number of tasks in this sub-area were viewed by the Advisory Committee as appropriately differentiated. Twenty tasks were designated as the proper responsibility of the RN and LVN/LPN jointly (#69.1-2, 69.4-7, 70.1-5, 71, 73, 75, 77.1-4, 79 and 80). Nine tasks were deemed appropriate to all personnel (#69.3, 72, 74, 77.5, 78.1-5); one task, #76, was seen to be the province of the RN; one task, #81, ("Apply defibrillator") was not thought to be a nursing function.

Table 13. APPROPRIATE LEVEL, FREQUENCY OF TASK PERFORMANCE BY CATEGORY OF PERSONNEL, PERCENTAGE DIFFERENCE IN FREQUENCY OF TASK PERFORMANCE BETWEEN CATEGORIES OF PERSONNEL AND CRITICALITY WITHIN THE FUNCTIONAL AREA OF TREATMENTS, PROCEDURES, MEDICATIONS, AND DIAGNOSTIC ACTIVITIES: D-1. Treatments and Procedures

Task	Level*	Frequency (Percent of personnel saying task is performed "daily," or "almost daily," or "several times a week.")								Percent Difference			Criticality		p**
		All Personnel (N=398)		Staff Nurse (N=137)		LVN/LPN (N=130)		Nurses Aide (N=131)		RN Versus LVN/LPN	RN Versus Aide	LVN Versus Aide	Score	Rank	
		Rank	Percent	Rank	Percent	Rank	Percent	Rank	Percent						
74. Empty drainage bottles and bags.	ALL	1	62.1	4	40.1	1	73.1	1	74.0	-33%	-34%	-1%	2.66	23.0	.001
72. Check and maintain drainage tubing without suction, e.g., urinary, catheters, T-tube.	ALL	2	57.5	1	53.3	2	70.8	3	48.9	-18%	+4%	+22%	3.33	10.25	.001
71. Connect catheters and tubing to drainage.	RN,LVN	3	53.3	2	47.4	3	65.4	4	47.3	-18%	0	+18%	3.16	14.16	.01
77.5 Care for specimens.	ALL	4	44.7	6.5	35.8	4	56.9	6	42.0	-21%	-6%	+15%	2.33	25.0	.01
69.3 Irrigate rectum (enema).	ALL	5	42.0	13	24.1	5	53.1	2	49.6	-29%	-26%	+3%	2.16	26.16	.001
78.3 Assist with and/or apply ace bandages and elastic stockings.	ALL	6	40.2	10	29.2	6	47.7	5	44.3	-19%	-15%	+4%	3.0	20.0	.01
77.2 Position and hold patient for rectal, vaginal, or proctoscopic.	RN,LVN	7	32.4	6.5	35.8	8	36.9	7	24.4	-1%	+12%	+13%	2.16	26.16	n.s.
77.3 Set up equipment for rectal, vaginal, or proctoscopic.	RN,LVN	8	30.7	5	38.7	10	35.4	11.5	17.6	+4%	+21%	+17%	2.5	24.0	.001
77.1 Screen and drape patient for rectal, vaginal, or proctoscopic.	RN,LVN	9	29.6	8	32.8	11.5	32.3	8	23.7	+1%	+9%	+8%	2.16	26.16	n.s.
77.4 Assist physician with equipment for rectal, vaginal, proctoscopic.	RN,LVN	10	29.4	3	41.6	11.5	32.3	14.5	13.7	+10%	+28%	+18%	2.16	26.16	.001
73. Check and maintain drainage tubing with suction, e.g., chest, gastric.	RN,LVN	11	25.4	11	27.7	14	26.9	10	21.4	+1%	+7%	+6%	3.83	6.0	n.s.
75. Insert urinary catheters.	RN,LVN	12.5	23.4	12	26.3	9	36.2	17.5	7.6	-10%	+18%	+28%	4.0	5.0	.001
78.2 Assist with and/or apply T, straight,scultetus, breast, and triangular (sling) binders.	ALL	12.5	23.4	14	19.0	13	29.2	9	22.1	-10%	-3%	+7%	2.83	21.5	n.s.
69.4 Irrigate bladder.	RN,LVN	14	23.1	15.5	16.8	7	39.2	14.5	13.7	-22%	+3%	+25%	3.33	10.25	.001
70.1 Instill solutions into eye, ear, nose.	RN,LVN	15	18.8	9	29.9	15	22.3	24.5	3.8	+8%	+26%	+18%	3.16	14.16	.001

*Appropriateness of task to category of personnel as determined by the National Advisory Committee.
**Level of significance for Chi-square computed on 2x3 tables comparing frequency of task performance by category of personnel.
n.s. indicates p value greater than .05.

Table 13.
(Continued)

APPROPRIATE LEVEL, FREQUENCY OF TASK PERFORMANCE BY CATEGORY OF PERSONNEL, PERCENTAGE DIFFERENCE IN FREQUENCY OF TASK PERFORMANCE BETWEEN CATEGORIES OF PERSONNEL AND CRITICALITY WITHIN THE FUNCTIONAL AREA OF TREATMENTS, PROCEDURES, MEDICATIONS, AND DIAGNOSTIC ACTIVITIES: D-1. Treatments and Procedures

Task	Level*	Frequency (Percent of personnel saying task is performed "daily," or "almost daily," or "several times a week.")								Percent Difference			Criticality		p**
		All Personnel (N=398)		Staff Nurse (N=137)		LVN/LPN (N=130)		Nurses Aide (N=131)		RN Versus		LVN Versus			
		Rank	Percent	Rank	Percent	Rank	Percent	Rank	Percent	LVN/LPN	Aide	Aide	Score	Rank	
78.4 Assist with and/or apply roller bandages.	ALL	16	16.1	17	10.9	16	20.8	13	16.8	-10%	-6%	+4%	2.83	21.5	n.s.
78.1 Assist with and/or apply rib belts.	ALL	17	11.3	27	3.6	20	13.1	11.5	17.6	-9%	-14%	-5%	**3.16	14.16	.01
70.3 Instill solutions into bladder.	RN,LVN	18.5	10.8	18	10.2	18.5	15.4	19	6.9	-5%	+3%	+8%	3.16	14.16	n.s.
69.7 Irrigate wound.	RN,LVN	18.5	10.8	21	6.6	17	20.0	20.5	6.1	-13%	+1%	+14%	X3.5	8.5	.001
70.5 Instill solutions into wound.	RN,LVN	20	9.5	19.5	7.3	18.5	15.4	20.5	6.1	-8%	+1%	+9%	*3.33	10.25	.05
69.2 Vaginal (douche)	RN,LVN	21	8.3	28	2.9	21	11.5	16	10.7	-9%	-8%	+1%	*2.16	26.16	.05
69.1 Irrigate eye, ear, throat.	RN,LVN	22	7.3	22.5	5.8	22.5	10.8	22.5	5.3	-5%	+1%	+6%	2.16	26.16	n.s.
79. Apply tourniquet.	RN,LVN	23	7.0	15.5	16.8	29	0.8	26.33	3.1	+16%	+13%	-2%	X4.16	4.0	.001
70.2 Instill solutions into vagina.	RN,LVN	24	6.8	26	4.4	22.5	10.8	22.5	5.3	-7%	-1%	+6%	3.16	14.16	n.s.
69.5 Irrigate colostomy.	RN,LVN	25	5.5	29.5	0.7	24	8.5	17.5	7.6	-8%	-7%	+1%	**3.66	7.0	.01
69.6 Irrigate stomach.	RN,LVN	26.5	4.8	22.5	5.8	25	5.4	26.33	3.1	+1%	+3%	+2%	3.5	8.5	n.s.
70.4 Instill solutions into stomach.	RN,LVN	26.5	4.8	19.5	7.3	27	3.8	26.33	3.1	+3%	+4%	+1%	3.33	10.25	n.s.
78.5 Assist with and/or apply splints.	ALL	28	3.8	24.5	5.1	28	2.3	24.5	3.8	+3%	+1%	-2%	3.16	14.16	n.s.
80. Assist with somatic therapies, e.g., insulin shock treatments, electroconvulsive treatments.	RN,LVN	29	2.0	29.5	0.7	26	4.6	30	0.8	-4%	0	+4%	*4.33	3.0	.05
76. Insert nasogastric catheters.	RN	30	1.8	24.5	5.1	30.5	0.0	31	0.0	+5%	+5%	0	**4.5	2.0	.01
81. Apply defibrillator.	NONE	31	0.5	31	0.0	30.5	0.0	29	1.5	0	-2%	-2%	4.83	1.0	n.s.

*Appropriateness of task to category of personnel as determined by the National Advisory Committee.
**Level of significance for Chi-square computed on 2x3 tables comparing frequency of task performance by category of personnel.
n.s. indicates p value greater than .05.

Considering the tasks deemed to be the responsibility of all personnel, three of the nine were undifferentiated in practice. One of these three (#78.5) was performed in roughly equal frequency by all categories, although in general it was not performed often (3.8%, all personnel). The remaining two tasks (#78.2 and 78.4), while displaying no statistically significant differences by category of personnel, tended to be performed more frequently by LVN/LPNS and Aides. They were somewhat more frequently performed in general (23.4 and 16.4%, respectively, all personnel) than was Task #78.5. The other six tasks of this group were all significantly differentiated at the .01 level or beyond. The pattern is for more frequent performance by LVN/LPNs and Aides versus the RN, with the exception of Task #72, ("Check and maintain drainage tubing without suction . . ."), which was predominantly performed by the LVN/LPN. As has been generally found to be the case in the other functional areas and sub-areas, tasks which are viewed by the Advisory Committee to be the appropriate function of all personnel tend nonetheless to show differentiation, usually in the direction of performance by the LVN/LPN and the Aide.

The one task, (#76, "Insert nasogastric catheters"), thought to be the exclusive function of the RN, was, in fact, performed only by her. The task that was not deemed to be a nursing function at all (#81, "Apply defibrillator") ranked last in frequency of performance (0.5%, all personnel), and was reportedly performed frequently by 1.5 percent of the Aides but not at all by the RNs or LVN/LPNs.

The 20 tasks assigned to the RN and the LVN/LPN by the Advisory Committee turned out in practice as follows. Only four tasks were clearly differentiated in the direction thought to be appropriate by the Advisory Committee (#70.1, 75, 77.3-4, $p \leq .001$). Two tasks (#70.4 and 79) tended to be performed by the RN ($p \leq .001$). Seven tasks (#69.4, 69.7, 70.2-3, 70.5, 71 and 80) displayed the tendency toward most frequent performance by the LVN/LPN, Tasks 69.4, 69.7 and 71, strikingly so. Tasks #69.2 and #69.5 showed a clear and statistically significant pattern of performance ($p \leq .05$ and .01, respectively) by the LVN/LPN and Aide. The remaining five tasks (#69.1, 69.6, 73, 77.1-2) reveal no statistically significant differences in frequency of performance by category of personnel, although Tasks #73 and 77.1-2 tended toward more frequent performance by the RN and LVN/LPN.

General Remarks

The rather sharp downward gradient in frequency of performance characteristic of this area probably reflects the change from relatively common procedures to relatively specialized ones. This remark needs to be qualified in light of the fact that all tasks in D-1 are organized around particular treatment and diagnostic activities, e.g., catheterization, rectal, vaginal and proctoscopic examination, bladder irrigation, etc. (See Table 13-A.) Hence, the more frequent tasks undoubtedly involve procedures more or less common to several of the more specialized activities, e.g., emptying drainage bottles and bags, checking and maintaining drainage tubing without suction, etc.

By and large, most of the tasks in this area were performed by the two higher skilled categories (RN and LVN/LPN), either predominantly by one or the other, or jointly. In general, the LVN/LPN was the most frequent performer, suggesting that she is accorded a large measure of responsibility for

Table 13-A. APPROPRIATE LEVEL, FREQUENCY OF TASK PERFORMANCE BY CATEGORY OF PERSONNEL, PERCENTAGE DIFFERENCE IN FREQUENCY OF TASK PERFORMANCE BETWEEN CATEGORIES OF PERSONNEL AND CRITICALITY WITHIN THE FUNCTIONAL AREA OF TREATMENTS, PROCEDURES, MEDICATIONS, AND DIAGNOSTIC ACTIVITIES: D-1. Treatments and Procedures (Sub-tasks)

Task	Level*	Frequency (Percent of personnel saying task is performed "daily," or "almost daily," or "several times a week.")								Percent Difference			Criticality		p**
		All Personnel (N=398)		Staff Nurse (N=137)		LVN/LPN (N=130)		Nurses Aide (N=131)		RN Versus		LVN Versus			
		Rank	Percent	Rank	Percent	Rank	Percent	Rank	Percent	LVN/LPN	Aide	Aide	Score	Rank	
69.0 Irrigate natural and artificial body openings and tubings:															
69.3 Rectum (enema).	ALL	1	42.0	1	24.1	1	53.1	1	49.6	-29%	-26%	+3%	2.16	5.33	.001
69.4 Bladder.	RN,LVN	2	23.1	2	16.8	2	39.2	2	13.7	-22%	+3%	+25%	3.33	4.0	.001
69.7 Wound.	RN,LVN	3	10.8	3	6.6	3	20.0	5	6.1	-13%	+1%	+14%	3.5	2.5	.001
69.2 Vagina (douche).	RN,LVN	4	8.3	6	2.9	4	11.5	3	10.7	-9%	-8%	+1%	2.16	5.33	.05
69.1 Eye, ear, throat.	RN,LVN	5	7.3	4.5	5.8	5	10.8	6	5.3	-5%	+1%	+6%	2.16	5.33	n.s.
69.5 Colostomy.	RN,LVN	6	5.5	7	0.7	6	8.5	4	7.6	-8%	-7%	+1%	3.66	1.0	.01
69.6 Stomach.	RN,LVN	7	4.8	4.5	5.8	7	5.4	7	3.1	+1%	+3%	+2%	3.5	2.5	n.s.
70.0 Instill solutions into natural and artificial body openings and tubings:															
70.1 Eye, ear, nose drops.	RN,LVN	1	18.8	1	29.9	1	22.3	4	3.8	+8%	+26%	+18%	3.16	3.33	.001
70.3 Bladder.	RN,LVN	2	10.8	2	10.2	2.5	15.4	1	6.9	-5%	+3%	+8%	3.16	3.33	.001
70.5 Wound.	RN,LVN	3	9.5	3.5	7.3	2.5	15.4	2	6.1	-8%	+1%	+9%	3.33	1.5	.05
70.2 Vagina.	RN,LVN	4	6.8	5	4.4	4	10.8	3	5.3	-7%	-1%	+6%	3.16	3.33	.001
70.4 Stomach.	RN,LVN	5	4.8	3.5	7.3	5	3.8	5	3.1	+3%	+4%	+1%	3.33	1.5	.001
77.0 Assist with medical procedures (rectal, vaginal, proctoscopic):															
77.5 Care for specimens.	ALL	1	44.7	3.5	35.8	1	56.9	1	42.0	-21%	-6%	+15%	2.33	2.0	.01
77.2 Position and hold patient.	RN,LVN	2	32.4	3.5	35.8	2	36.9	2	24.4	-1%	+12%	+13%	2.16	3.33	n.s.
77.3 Set up equipment.	RN,LVN	3	30.7	2	38.7	3	35.4	4	17.6	+4%	+21%	+17%	2.5	1.0	.001
77.1 Screen and drape patient.	RN,LVN	4	29.6	5	32.8	4.5	32.3	3	23.7	+1%	+9%	+8%	2.16	3.33	.001

*Appropriateness of task to category of personnel as determined by the National Advisory Committee.
**Level of significance for Chi-square computed on 2x3 tables comparing frequency of task performance by category of personnel.
n.s. indicates p value greater than .05.

Table 13-A. (Continued)

APPROPRIATE LEVEL, FREQUENCY OF TASK PERFORMANCE BY CATEGORY OF PERSONNEL, PERCENTAGE DIFFERENCE IN FREQUENCY OF TASK PERFORMANCE BETWEEN CATEGORIES OF PERSONNEL AND CRITICALITY WITHIN THE FUNCTIONAL AREA OF TREATMENTS, PROCEDURES, MEDICATIONS, AND DIAGNOSTIC ACTIVITIES: D-1. Treatments and Procedures (Sub-tasks)

Task	Level*	Frequency (Percent of personnel saying task is performed "daily," or "almost daily," or "several times a week.")								Percent Difference			Criticality		p**
		All Personnel (N=398)		Staff Nurse (N=137)		LVN/LPN (N=130)		Nurses Aide (N=131)		RN Versus		LVN Versus			
		Rank	Percent	Rank	Percent	Rank	Percent	Rank	Percent	LVN/LPN	Aide	Aide	Score	Rank	
77.4 Assist physician with equipment.	RN,LVN	5	29.4	1	41.6	4.5	32.3	5	13.7	+10%	+28%	+18%	2.16	3.33	.001
78.0 Assist with and/or apply non-sterile dressings, binders and bandages:															
78.3 Ace bandages, and elastic stockings.	ALL	1	40.2	1	29.2	1	47.7	1	44.3	-19%	-15%	+4%	3.0	3.0	n.s.
78.2 T, straight, scultetus, breast, and triangular (sling).	ALL	2	23.4	2	19.0	2	29.2	2	22.1	-10%	-3%	+7%	2.83	4.5	n.s.
78.4 Roller bandages.	ALL	3	16.1	3	10.9	3	20.8	4	16.8	-10%	-6%	+4%	2.83	4.5	n.s.
78.1 Rib belts.	ALL	4	11.3	5	3.6	4	13.1	3	17.6	-9%	-14%	-5%	3.16	1.5	.01
78.5 Splints.	ALL	5	3.8	4	5.1	5	2.3	5	3.8	+3%	+1%	-2%	3.16	1.5	n.s.

*Appropriateness of task to category of personnel as determined by the National Advisory Committee.
**Level of significance for Chi-square computed on 2x3 tables comparing frequency of task performance by category of personnel.
n.s. indicates p value greater than .05.

the array of tasks comprising this area. The Aide, while usually a less frequent performer than the LVN/LPN or RN except in the least technical and least critical tasks, nonetheless participates in activities thought to be the province of her more highly trained colleagues. Again, a close inspection of the significance of the Aide's involvement in tasks formally beyond her training will be required in order to fully assess implications for curriculum construction.

2. Application of Heat, Cold, Medicated Therapeutic Agents

Description of the Area

Three basic categories classified the 20 tasks comprising this sub-area: (a) "Apply hot therapeutic agents" (#82, 83, 84.1, 85.1, 86.1, 88, 91.2, 91.3, 92); (b) "Apply cold therapeutic agents" (#84.2, 85.2, 86.2, 87); and (c) "Apply medicated therapeutic agents" (#84.3, 85.3, 86.3, 89, 90, 91.1, 91.4).

These tasks, like the tasks in the preceding two sub-areas, are largely oriented to specific therapeutic goals, and consequently, the frequency of the occurrence is lower overall than for more generalized tasks. The most frequently occurring task (#87, "Apply ice bags") was reported by 40.7 percent of all personnel. (See Tables 14 and 14-A.) The least frequent task (#90, "Apply ultraviolet lamp") was reported by 1.5 percent of all personnel. The range of frequency was 39.2 percent, ranked 12.5 out of 16. The mid-most task is between #86.1, 15.3 percent, all personnel, and #91.3, 15.1 percent, all personnel. The frequency of the mid-most or median task is 15.2, 14th out of 16.

The spread of criticality scores is 4.0 ("above average," Tasks #84.1, 84.2, 89, 90) to 2.83 (close to "average," Tasks #91.3-4 and 92). The median criticality score was 3.63 (between "average" and "above average"), and ranks fourth out of 16.

The median score of the ten most frequently occurring tasks falls at 3.59; the median criticality of the ten less frequently occurring tasks was 3.65. Thus, the distribution of criticality scores appears to be uniform over the distribution of frequency of performance, making this sub-area an apparent exception to the pattern of low frequency-high criticality noticed in the preceding areas. It should be noted, however, that 19 out of 20 tasks have a frequency of 25.6 percent or less (all personnel), suggesting that the relationship of frequency and criticality previously observed still holds.

Close to one-half (8 of 20) of the tasks in this sub-area were judged by the Advisory Committee to be appropriate to all levels of personnel (#82, 87, 88, 91.1-4, and 92). A similar proportion (9 of 20) were thought to be the responsibilities of the RN and LVN/LPN. Two tasks, #89 and #90, were not seen as nursing functions, and one task, #83, was not judged by the Advisory Committee.

All but one (#91.1, "Administer medicated baths") of the eight tasks deemed appropriate for all personnel were significantly differentiated toward performance by the LVN/LPN and the Aide; the one exception showed a pattern of a greater frequency performance by the LVN/LPN and Aide. Of the nine tasks viewed as the function of the RN and LVN/LPN, two (#84.1, "Apply hot packs" and #84.2, "Apply cold packs") were significantly differentiated toward performance

Table 14. APPROPRIATE LEVEL, FREQUENCY OF TASK PERFORMANCE BY CATEGORY OF PERSONNEL, PERCENTAGE DIFFERENCE IN FREQUENCY OF TASK PERFORMANCE BETWEEN CATEGORIES OF PERSONNEL AND CRITICALITY WITHIN THE FUNCTIONAL AREA OF TREATMENTS, PROCEDURES, MEDICATIONS, AND DIAGNOSTIC ACTIVITIES: D-2. Application of Heat, Cold, Medicated Therapeutic Agents

Task	Level*	Frequency (Percent of personnel saying task is performed "daily," or "almost daily," or "several times a week.")								Percent Difference			Criticality		p**
		All Personnel (N=398)		Staff Nurse (N=137)		LVN/LPN (N=130)		Nurses Aide (N=131)		RN Versus		LVN Versus			
		Rank	Percent	Rank	Percent	Rank	Percent	Rank	Percent	LVN/LPN	Aide	Aide	Score	Rank	
87. Apply ice bags.	ALL	1	40.7	1	27.7	1	46.2	1	48.9	-18%	-21%	-3%	3.66	5.11	.001
83. Apply heating pads.	NO JDGMT	2	25.6	3	14.6	2	34.6	5	28.2	-20%	-13%	+7%	3.5	14.25	.001
91.2 Administer sitz bath.	ALL	3.5	24.4	7.33	9.5	5.5	30.8	2.5	33.6	-21%	-24%	-3%	3.5	14.25	.001
92. Apply thermal blanket.	ALL	3.5	24.4	7.33	9.5	5.5	30.8	2.5	33.6	-21%	-24%	-3%	2.83	18.33	.001
82. Apply hot water bottle.	ALL	5	23.6	10	8.0	3.5	32.3	4	31.3	-24%	-23%	+1%	3.5	14.25	.001
84.2 Apply cold packs.	RN,LVN	6	23.1	4	12.4	3.5	32.3	6	25.2	-20%	-13%	+7%	4.0	1.25	.001
84.1 Apply hot packs.	RN,LVN	7	22.9	2	15.3	7	29.2	7	24.4	-14%	-9%	+5%	4.0	1.25	.05
85.1 Apply hot compresses.	RN,LVN	8	15.8	5	11.7	10.5	21.5	10	14.5	-10%	-3%	+7%	3.66	5.11	n.s.
85.2 Apply cold compresses.	RN,LVN	9	15.6	6	10.9	9	22.3	11	13.7	-11%	-3%	+8%	3.66	5.11	.05
86.1 Administer hot soaks.	RN,LVN	10	15.3	7.33	9.5	10.5	21.5	9	15.3	-12%	-5%	+7%	3.66	5.11	.05
91.3 Administer tepid baths.	ALL	11	15.1	12.5	5.8	8	23.8	8	16.0	-18%	-10%	+8%	2.83	18.33	.001
86.2 Administer cold soaks.	RN,LVN	12	13.1	11	6.6	12	20.0	12	13.0	-13%	-6%	+7%	3.66	5.11	.01
85.3 Apply medicated compresses.	RN,LVN	13	7.8	12.5	5.8	13	12.3	17.33	5.3	-6%	+1%	+7%	3.66	5.11	n.s.
84.3 Apply medicated packs.	RN,LVN	14.5	7.3	14.5	4.4	14.5	11.5	16	6.1	-8%	-2%	+6%	3.5	14.25	n.s.
86.3 Administer medicated soaks.	RN,LVN	14.5	7.3	14.5	4.4	16.5	10.0	14.5	7.6	-6%	-4%	+2%	3.66	5.11	n.s.
88. Apply heat cradles.	ALL	16	6.8	16.5	1.5	14.5	11.5	14.5	7.6	-10%	-6%	+4%	3.66	5.11	.01
91.4 Administer alcohol baths.	ALL	17	6.3	18.5	0.7	16.5	10.0	13	8.4	-9%	-7%	+2%	2.83	18.33	.01
89. Apply infra-red lamps.	NONE	18	4.0	16.5	1.5	18.5	5.4	17.33	5.3	-3%	-3%	0	4.0	1.25	n.s.
91.1 Apply medicated bath.	ALL	19	3.8	18.5	0.7	18.5	5.4	17.33	5.3	-4%	-4%	0	3.66	5.11	n.s.
90. Apply ultraviolet lamps.	NONE	20	1.5	20	0.0	20	3.1	20	1.5	-3%	-2%	+1%	4.0	1.25	n.s.

*Appropriateness of task to category of personnel as determined by the National Advisory Committee.
**Level of significance for Chi-square computed on 2x3 tables comparing frequency of task performance by category of personnel.
n.s. indicates p value greater than .05.

Table 14-A. APPROPRIATE LEVEL, FREQUENCY OF TASK PERFORMANCE BY CATEGORY OF PERSONNEL, PERCENTAGE DIFFERENCE IN FREQUENCY OF TASK PERFORMANCE BETWEEN CATEGORIES OF PERSONNEL AND CRITICALITY WITHIN THE FUNCTIONAL AREA OF TREATMENTS, PROCEDURES, MEDICATIONS, AND DIAGNOSTIC ACTIVITIES: D-2. Application of Heat, Cold, Medicated Therapeutic Agents (Sub-tasks)

Task	Level*	Frequency (Percent of personnel saying task is performed "daily," or "almost daily," or "several times a week.")								Percent Difference			Criticality		p**
		All Personnel (N=398)		Staff Nurse (N=137)		LVN/LPN (N=130)		Nurses Aide (N=131)		RN Versus LVN/LPN	RN Versus Aide	LVN Versus Aide	Score	Rank	
		Rank	Percent	Rank	Percent	Rank	Percent	Rank	Percent						
84.0 Apply packs:															
84.2 Cold.	RN,LVN	1	23.1	2	12.4	1	32.3	1	25.2	-20%	-13%	+7%	4.0	1.5	.001
84.1 Hot.	RN,LVN	2	22.9	1	15.3	2	29.2	2	24.4	-14%	-9%	+5%	4.0	1.5	.05
84.3 Medicated.	RN,LVN	3	7.3	3	4.4	3	11.5	3	6.1	-8%	-2%	+6%	3.5	3.0	n.s.
85.0 Apply compresses:															
85.1 Hot.	RN,LVN	1	15.8	1	11.7	2	21.5	1	14.5	-10%	-3%	+7%	3.66	1.33	n.s.
85.2 Cold.	RN,LVN	2	15.6	2	10.9	1	22.3	2	13.7	-11%	-3%	+8%	3.66	1.33	.05
85.3 Medicated.	RN,LVN	3	7.8	3	5.8	3	12.3	3	5.3	-6%	+1%	+7%	3.66	1.33	n.s.
86.0 Administer soaks:															
86.1 Hot.	RN,LVN	1	15.3	1	9.5	1	21.5	1	15.3	-12%	-5%	+7%	3.66	1.33	.05
86.2 Cold.	RN,LVN	2	13.1	2	6.6	2	20.0	2	13.0	-13%	-6%	+7%	3.66	1.33	.01
86.3 Medicated.	RN,LVN	3	7.3	3	4.4	3	10.0	3	7.6	-6%	-4%	+2%	3.66	1.33	n.s.
91.0 Administer baths:															
91.2 Sitz.	ALL	1	24.4	1	9.5	1	30.8	1	33.6	-21%	-24%	-3%	3.5	2.0	.001
91.3 Tepid.	ALL	2	15.1	2	5.8	2	23.8	2	16.0	-18%	-10%	+8%	2.83	3.5	.001
91.4 Alcohol.	ALL	3	6.3	3.5	0.7	3	10.0	3	8.4	-9%	-7%	+2%	2.83	3.5	.01
91.1 Medicated.	ALL	4	3.8	3.5	0.7	4	5.4	4	5.3	-4%	-4%	0	3.66	1.0	n.s.

*Appropriateness of task to category of personnel as determined by the National Advisory Committee.
**Level of significance for Chi-square computed on 2x3 tables comparing frequency of task performance by category of personnel.
n.s. indicates p value greater than .05.

by the LVN/LPN and Aide ($p \leq .05$ and .001, respectively). Four tasks (#85.2-3 and 86.1-2) were significantly differentiated toward performance by the LVN/LPN. Three tasks displayed no statistically significant differentiation (#84.3, 85.1, and 86.3), although there was a tendency for the LVN/LPN to be the most frequent performer. The two tasks not seen as nursing functions occurred relatively infrequently (#89, 4.0%, all personnel, and #90, 1.5%, all personnel).

Although the criticality of the tasks in this area was judged between "average" and "above average," the main performers are the LVN/LPN and the Aide. The nine tasks judged to be the province of the RN and LVN/LPN were, if differentiated at all, performed most frequently by the LVN/LPN. (The median criticality score for the eight tasks appropriate to all was 3.26; for the nine tasks assigned to the RN and LVN/LPN, 3.73.)

General Remarks

The pattern of task performance in this area leans distinctly toward the two lower-skilled categories. While the range of frequency of performance for all personnel was relatively narrow, it is narrower still for the RN (27.7%) compared with the LVN/LPN (43.1%) and the Aide (47.4%). The tasks comprising the area on the whole are performed with relative infrequency. This suggests that an appropriate mode of providing whatever training might be called for by these tasks (particularly for the Aide) might be in-service education. While many of the tasks are deemed relatively critical, they do not occur often, and might best be taught on the job. It is likely that personnel are, in fact, instructed in this fashion, and further investigation might indicate that no significant need exists for any detailed attention to the skills involved in these procedures.

3. Medications

Description of the Area and General Remarks

This sub-area is made up of six tasks which involve the preparation and giving of medications. The most frequent task is #94.1 ("Give oral medications," 44.2%, all personnel); the least frequent is #94.3 ("Give inhalation medication," 12.3%, all personnel). (See Tables 15 and 15-A.) The range of frequency of performance is 31.9 percent, 15th out of 16. The mid-most task falls between #94.4 ("Give intramuscular medications," 41.5%, all personnel) and #94.2 ("Give rectal medications," 30.7%, all personnel). The frequency of the mid-most task is 36.1 percent, ranked sixth out of 16.

The tasks are judged almost uniformly critical by the Advisory Committee, varying from 4.5 (#94.1-4) to 3.83 (#94.5). The median criticality score is 4.21, the highest of any area. One task (#94.5) is judged to be the sole responsibility of the RN. The rest are seen as the joint function of the RN and LVN/LPN.

In practice, these judgments of the Advisory Committee are reflected in clearcut and decisive differentation of task performance. Task #94.5 ("Give intravenous medications") is performed almost exclusively by the RN. Tasks allocated to the RN and LVN/LPN by the Advisory Committee are, in fact,

Table 15. APPROPRIATE LEVEL, FREQUENCY OF TASK PERFORMANCE BY CATEGORY OF PERSONNEL, PERCENTAGE DIFFERENCE IN FREQUENCY OF TASK PERFORMANCE BETWEEN CATEGORIES OF PERSONNEL AND CRITICALITY WITHIN THE FUNCTIONAL AREA OF TREATMENTS, PROCEDURES, MEDICATIONS, AND DIAGNOSTIC ACTIVITIES: D-3. Medications

Task	Level*	Frequency (Percent of personnel saying task is performed "daily," or "almost daily," or "several times a week.")								Percent Difference			Criticality		p
		All Personnel (N=398)		Staff Nurse (N=137)		LVN/LPN (N=130)		Nurses Aide (N=131)		RN Versus		LVN Versus			
		Rank	Percent	Rank	Percent	Rank	Percent	Rank	Percent	LVN/LPN	Aide	Aide	Score	Rank	
94.1 Give oral medications.	RN,LVN	1	44.2	2.5	81.0	1	45.4	2	4.6	+36%	+76%	+40%	4.5	1.25	.001
93. Prepare medications.	RN,LVN	2	42.5	1	83.2	2	40.8	5.5	1.5	+42%	+81%	+39%	4.33	5.0	.001
94.4 Give intramuscular medications.	RN,LVN	3	41.5	2.5	81.0	3.5	39.2	4	2.3	+42%	+79%	+37%	4.5	1.25	.001
94.2 Give rectal medications.	RN,LVN	4	30.7	5	43.8	3.5	39.2	1	8.4	+5%	+36%	+31%	4.5	1.25	.001
94.5 Give intravenous medications.	RN	5	16.8	4	44.5	6	3.1	5.5	1.5	+42%	+43%	+1%	3.83	6.0	.001
94.3 Give inhalation medications.	RN,LVN	6	12.3	6	15.3	5	18.5	3	3.1	-4%	+12%	+16%	4.5	1.25	.001

*Appropriateness of task to category of personnel as determined by the National Advisory Committee.
**Level of significance for Chi-square computed on 2x3 tables comparing frequency of task performance by category of personnel. n.s. indicates p value greater than .05.

Table 15-A. APPROPRIATE LEVEL, FREQUENCY OF TASK PERFORMANCE BY CATEGORY OF PERSONNEL, PERCENTAGE DIFFERENCE IN FREQUENCY OF TASK PERFORMANCE BETWEEN CATEGORIES OF PERSONNEL AND CRITICALITY WITHIN THE FUNCTIONAL AREA OF TREATMENTS, PROCEDURES, MEDICATIONS, AND DIAGNOSTIC ACTIVITIES: D-3. Medications (Sub-tasks)

Task	Level*	Frequency (Percent of personnel saying task is performed "daily," or "almost daily," or "several times a week.")								Percent Difference			Criticality		p**
		All Personnel (N=398)		Staff Nurse (N=137)		LVN/LPN (N=130)		Nurses Aide (N=131)		RN Versus		LVN Versus			
		Rank	Percent	Rank	Percent	Rank	Percent	Rank	Percent	LVN/LPN	Aide	Aide	Score	Rank	
94.0 Give medications:															
94.1 Oral.	RN,LVN	1	44.2	1.5	81.0	1	45.4	2	4.6	+36%	+76%	+40%	4.5	1.25	.001
94.4 Intramuscular.	RN,LVN	2	41.5	1.5	81.0	2.5	39.2	4	2.3	+42%	+79%	+37%	4.5	1.25	.001
94.2 Rectal.	RN,LVN	3	30.7	4	43.8	2.5	39.2	1	8.4	+5%	+36%	+31%	4.5	1.25	.001
94.5 Intravenous.	RN	4	16.8	3	44.5	5	3.1	5	1.5	+42%	+43%	+1%	3.83	5.0	.001
94.3 Inhalation.	RN,LVN	5	12.3	5	15.3	4	18.5	3	3.1	-4%	+12%	+16%	4.5	1.25	.001

*Appropriateness of task to category of personnel as determined by the National Advisory Committee.
**Level of significance for Chi-square computed on 2x3 tables comparing frequency of task performance by category of personnel.
n.s. indicates p value greater than .05.

performed by these personnel. In the case of the preparation of medication (#93), and the administration of oral and intramuscluar medication, the RN, on the average, performs these activities twice as frequently as the LVN/LPN; for the administration of rectal and inhalation medication, the RN and LVN/LPN are equal. Aides play a very minor role in these activities. The striking differentiation of tasks in this area obviously reflects a well-established and communicated consensus in the hospital setting concerning what level of skills is required for tasks of this sort.

4. Diagnostic Activities

Description of the Area

The 21 "diagnostic" tasks in this nursing area may be placed in three categories: (a) "Pulse and respiration" (#104.1-2, 105-109); (b) "Temperature" (#103.1-3); and (c) "Specimen collection and testing" (#95-100, 101, 101.1, 102, 110, 111).

These tasks represent a mixture of routine monitoring of patient's condition (e.g., #103.1, "Take oral temperature") and the execution of certain phases of diagnostic procedures ordered by physician (e.g., #99, "Do nose and throat cultures").

The most frequently performed task is #105 ("Count respirations," 81.4%, all personnel); the least frequent is #111 ("Read skin test," 1.0%, all personnel). (See Tables 16 and 16-A.) The range of frequency of performance is 80.4 percent, third highest overall. The mid-most task is #103.3 ("Take temperature; axillary," 18.1%, all personnel). In terms of the distribution of the frequencies of the median tasks for all areas, D-4 ranked 12th. The first quarter of the overall distribution of tasks in terms of frequency range from 81.4 percent (#105), to 63.8 percent (#103.2), both figures reflecting the frequency of performance by all personnel. Frequency performance of the remaining tasks drops off markedly after this point, suggesting a change from routine to "special" diagnostic activities.

Turning to the criticality dimension, the range of scores was from 4.83 (nearly "highly critical") to 2.66 (between "moderate" and "average" criticality). Task #109, "Assist with and/or take electrocardiograms," received the high score; Tasks #95, 96 and 98 ("Collecting urine, stool, and sputum specimens," respectively) and #101 ("Routine urinalysis") received the low score. The median criticality score was 3.06 ("average" criticality), eighth in the overall ranking.

Dividing the distribution into tasks falling at or above the mid-most tasks and tasks at or below it, the median criticality scores for the two halves are 2.81 and 3.44, respectively. This fits the familiar pattern observed previously; tasks judged to be relatively more critical tend to be relatively infrequent in occurrence.

Ten of the 21 tasks were deemed appropriate to all personnel by the Advisory Committee (#95, 98, 101.1, 103.1-3, 104.1 and 105). Three were thought to fall in the domain of the RN (#107, 108, 111); four were seen as the province of the RN and LVN/LPN (#99, 100, 104.2, 106); the remaining four (#101, 102, 109, 110) were not viewed as nursing functions.

Table 16. APPROPRIATE LEVEL, FREQUENCY OF TASK PERFORMANCE BY CATEGORY OF PERSONNEL, PERCENTAGE DIFFERENCE IN FREQUENCY OF TASK PERFORMANCE BETWEEN CATEGORIES OF PERSONNEL AND CRITICALITY WITHIN THE FUNCTIONAL AREA OF TREATMENTS, PROCEDURES, MEDICATIONS, AND DIAGNOSTIC ACTIVITIES: D-4. Diagnostic Activities

Task	Level*	Frequency (Percent of personnel saying task is performed "daily," or "almost daily," or "several times a week.")								Percent Difference			Criticality		p**
		All Personnel (N=398)		Staff Nurse (N=137)		LVN/LPN (N=130)		Nurses Aide (N=131)		RN Versus LVN/LPN	RN Versus Aide	LVN Versus Aide	Score	Rank	
		Rank	Percent	Rank	Percent	Rank	Percent	Rank	Percent						
105. Count respirations.	ALL	1	81.4	1.5	75.2	1	92.3	3	77.1	-17%	-2%	+15%	3.0	12.33	.001
104.1 Count pulse at pressure points (radial).	ALL	2	74.9	1.5	75.2	3	83.1	5	66.4	-8%	+9%	+17%	3.0	12.33	.01
103.1 Take oral temperature.	ALL	3	74.6	3.5	54.0	2	87.7	1	83.2	-34%	-29%	+5%	2.83	15.33	.001
95. Collect urine specimens.	ALL	4	68.8	3.5	54.0	5	75.4	2	77.9	-21%	-24%	-3%	2.66	18.25	.001
103.2 Take rectal temperature.	ALL	5	63.8	5	43.1	4	76.2	4	73.3	-33%	-30%	+3%	3.0	12.33	.001
101.1 Test urine for sugar and acetone.	ALL	6	46.0	7	27.7	6	58.5	6	52.7	-31%	-25%	+6%	3.66	5.5	.001
96. Collect stool specimens.	ALL	7	34.9	8	19.0	7	44.6	7	42.0	-26%	-23%	+3%	2.66	18.25	.001
104.2 Count pulse: apical.	RN,LVN	8	33.4	6	37.2	8	41.5	10	21.4	-5%	+16%	+21%	3.16	10.0	.01
98. Collect sputum specimens.	ALL	9.5	18.6	13	7.3	10	23.1	8	26.0	-16%	-19%	-3%	2.66	18.25	.001
101. Do routine urinalysis.	NONE	9.5	18.6	9	16.1	9	23.8	11	16.0	-8%	0	+8%	2.66	18.25	n.s.
103.3 Take temperature: axillary.	ALL	11	18.1	10.5	12.4	11	20.0	9	22.1	-8%	-10%	-2%	2.83	15.33	n.s.
106. Count fetal heart tones.	RN,LVN	12	10.1	10.5	12.4	12	6.9	12	10.7	+5%	+1%	-4%	3.5	7.0	n.s.
97. Collect gastric specimens.	ALL	13	6.0	18.5	2.2	13	6.2	13	9.9	-4%	-8%	-4%	2.83	15.33	.05
108. Read cardiac monitors.	RN	14	5.8	12	8.8	14.5	5.4	16	3.1	+4%	+6%	+2%	4.5	2.5	n.s.
110. Assist with and/or take X-rays.	NONE	15	4.5	16	4.4	16	4.6	14	4.6	-1%	-1%	0	4.5	2.5	n.s.
99. Do nose and throat cultures.	RN,LVN	16	4.3	14	6.6	14.5	5.4	20.5	0.8	+2%	+6%	+4%	3.33	8.5	.05
100. Do wound cultures.	RN,LVN	17.5	2.8	15	5.1	17	2.3	20.5	0.8	+3%	+4%	+1%	3.33	8.5	n.s.
109. Assist with and/or take electrocardiograms.	NONE	17.5	2.8	17	2.9	18.5	1.5	15	3.8	+1%	-1%	-2%	4.83	1.0	n.s.
107. Read fetal monitoring devices.	RN	19	1.5	20.5	0.7	18.5	1.5	17.5	2.3	-1%	-1%	0	4.16	4.0	n.s.
102. Draw sample of blood.	NONE	20	1.3	18.5	2.2	20.5	0.0	19	1.5	+2%	0	-2%	3.66	5.5	n.s.

*Appropriateness of task to category of personnel as determined by the National Advisory Committee.
**Level of significance for Chi-square computed on 2x3 tables comparing frequency of task performance by category of personnel.
n.s. indicates p value greater than .05.

Table 16.
(Continued)

APPROPRIATE LEVEL, FREQUENCY OF TASK PERFORMANCE BY CATEGORY OF PERSONNEL, PERCENTAGE DIFFERENCE IN FREQUENCY OF TASK PERFORMANCE BETWEEN CATEGORIES OF PERSONNEL AND CRITICALITY WITHIN THE FUNCTIONAL AREA OF TREATMENTS, PROCEDURES, MEDICATIONS, AND DIAGNOSTIC ACTIVITIES: D-4. Diagnostic Activities

Task	Level*	Frequency (Percent of personnel saying task is performed "daily," or "almost daily," or "several times a week.")								Percent Difference			Criticality		p**
		All Personnel (N=398)		Staff Nurse (N=137)		LVN/LPN (N=130)		Nurses Aide (N=131)		RN Versus LVN/LPN	RN Versus Aide	LVN Versus Aide	Score	Rank	
		Rank	Percent	Rank	Percent	Rank	Percent	Rank	Percent						
111. Read skin tests.	RN	21	1.0	20.5	0.7	20.5	0.0	17.5	2.3	+1%	-1%	-2%	3.16	10.0	n.s.

*Appropriateness of task to category of personnel as determined by the National Advisory Committee.
**Level of significance for Chi-square computed on 2x3 tables comparing frequency of task performance by category of personnel.
n.s. indicates p value greater than .05.

In practice, all ten of the tasks appropriate to the three categories of personnel were differentiated. Seven of the ten displayed a statistically significant pattern of predominant performance by the LVN/LPN and Aide (#95, 96, 97, 98, 101.1, 103.1-2). One task (#103.3) also showed this tendency, although the differences were not significant. Task #105, "Count respirations," was performed frequently by all personnel, but the LVN/LPN was the most frequent performer. A similar tendency was displayed by #104.1 ("Count pulse, radial"). Tasks #105 and 104.1 ranked first and second in frequency of performance by all personnel. The consistent tendency for "general" tasks appropriate to all personnel to be differentiated in this manner has been remarked on previously.

The three tasks deemed the function of the RN displayed no statistically significant differentiation by category of personnel. Task #108 did show a tendency for more frequent performance by the RNs; Task #111 tended to be performed more frequently by the Aide. None of the three tasks was reported to occur frequently.

Two of the four tasks thought to be the joint responsibility of the RN and LVN/LPN (#99 and 104.2) were, in fact, more frequently performed by them. The remaining two tasks (#100, 106) were not significantly differentiated, although only 0.8 percent of the Aides reported frequent performance of Task #100 ("Do wound cultures").

All four of the tasks designated by the Advisory Committee as non-nursing functions were undifferentiated. Three (#102, 109, and 110) were infrequently performed (1.3%, 2.8% and 4.5%, respectively, all personnel). Task #101 was reported to have been performed frequently by 18.6 percent of all personnel; LVN/LPNs were the most frequent performers of this activity ("Do routine urinalysis").

General Remarks

Many of the tasks in this area may be viewed as routine procedures which would inevitably be included in basic training programs, e.g., counting respirations and taking temperatures. And, as has been the case with frequent, routine tasks, the LVN/LPN and the Aide are typically the most frequent performers. Included in this area are several rather specialized procedures which, apparently, occur infrequently, e.g., counting fetal heart tones. Since the data encompass medical-surgical, obstetric and pediatric services, the relatively low frequency of some of these specialized tasks may reflect the grouped data. In any event, such procedures as reading a cardiac monitor (presumably a constituent task of the cardiac care unit) reflect very specialized activities which would be part of special curricula designed to meet the distinctive needs of particular treatment units. These observations point to the need to perform a more detailed breakdown on the available data, a matter which will be discussed in the concluding chapter of this report.

Table 16-A. APPROPRIATE LEVEL, FREQUENCY OF TASK PERFORMANCE BY CATEGORY OF PERSONNEL, PERCENTAGE DIFFERENCE IN FREQUENCY OF TASK PERFORMANCE BETWEEN CATEGORIES OF PERSONNEL AND CRITICALITY WITHIN THE FUNCTIONAL AREA OF TREATMENTS, PROCEDURES, MEDICATIONS, AND DIAGNOSTIC ACTIVITIES: D-4. Diagnostic Activities (Sub-tasks)

Task	Level*	Frequency (Percent of personnel saying task is performed "daily," or "almost daily," or "several times a week.")								Percent Difference			Criticality		p**
		All Personnel (N=398)		Staff Nurse (N=137)		LVN/LPN (N=130)		Nurses Aide (N=131)		RN Versus LVN/LPN	RN Versus Aide	LVN Versus Aide	Score	Rank	
		Rank	Percent	Rank	Percent	Rank	Percent	Rank	Percent						
101.0 Urinalysis:															
101.1 Test urine for sugar and acetone.	ALL	1	46.0	1	27.7	1	58.5	1	52.7	-31%	-25%	+6%	3.66	1.0	.001
101.0 Do routine urinalysis.	NONE	2	18.6	2	16.1	2	23.8	2	16.0	-8%	0	+8%	2.66	2.0	n.s.
103.0 Take temperature:															
103.1 Oral.	ALL	1	74.6	1	54.0	1	87.7	1	83.2	-34%	-29%	+5%	2.83	2.5	.001
103.2 Rectal.	ALL	2	63.8	2	43.1	2	76.2	2	73.3	-33%	-30%	+3%	3.0	1.0	.001
103.3 Axillary.	ALL	3	18.1	3	12.4	3	20.0	3	22.1	-8%	-10%	-2%	2.83	2.5	n.s.
104.0 Count pulse:															
104.1 Pressure points (radial).	ALL	1	74.9	1	75.2	1	83.1	1	66.4	-8%	+9%	+17%	3.0	2.0	.01
104.2 Apical.	RN,LVN	2	33.4	2	37.2	2	41.5	2	21.4	-5%	+16%	+21%	3.16	1.0	.01

*Appropriateness of task to category of personnel as determined by the National Advisory Committee.
**Level of significance for Chi-square computed on 2x3 tables comparing frequency of task performance by category of personnel.
n.s. indicates p value greater than .05.

E. Observation and Communication

1. Observation, Analysis, Interpretation

Description of the Area

Fourteen tasks comprising this nursing area may be conveniently classified into three categories: (a) "Observe patient's condition" (#112-119); (b) "Identify patient's needs" (#120-122); and (c) "Evaluate patient care" (#123, 124.1-2).

These tasks differ from those considered previously in that they do not consist, in the main, of concrete services to the patient, but instead, involve personnel in the work of looking for, recognizing and assessing a variety of signs and symptoms by patients which may indicate significant facts about their conditions.

Personnel in all categories report performing this set of tasks frequently (see Tables 17 and 17-A). The most frequent set of tasks was #114, "Observe objective signs and symptoms of illness . . . " (89.2%, all personnel); the least frequent was #123, "Suggest and/or make changes in plan of care" (52.8%, all personnel). The range of frequency is 36.4 percent, ranked 14th overall. The median task falls between #116 ("Observe general behavior," 82.4%, all personnel) and #118 ("Observe negative . . . response to treatment . . . ," 80.2%, all personnel).* The frequency of the median task, 81.3 percent, ranks first among the 16 areas. As is evident, this sub-area is characterized by a relatively high frequency of performance for these tasks, suggesting that they are routine facets of everyday work activities.

Criticality scores assigned by the Advisory Committee range from 4.16 ("above average") to 3.33 ("slightly over average"). Task #119 ("Interpret patient's signs, symptoms, behavior . . . ," 73.9%, all personnel) received the high score; Tasks #124.1 ("Identify strengths, weaknesses in patient care," 58.1%, all personnel) and #124.2 ("Seek guidance to understand and improve performance in patient care," 60.3%, all personnel), shared the low score. The median criticality score for the overall distribution of tasks was 3.40, sixth among the 16 areas.

Examining the seven tasks above the median, and the seven below, the median criticality score of each sub-distribution was 3.45 and 3.36, respectively. As in the case of Functional Area D-2, the distribution of criticality scores appears to be relatively uniform over the distribution of frequency of performance. As in D-2, the range of frequency of performance is restricted,

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*The two tasks just above the median point, and the two just below, were tied in terms of rank on frequency of performance, all personnel. In order to decide which task in each of the tied pairs would be reported as immediately above or below the median,an ordering of each pair was obtained by reference to rank on frequency of performance by the RN.

Table 17. APPROPRIATE LEVEL, FREQUENCY OF TASK PERFORMANCE BY CATEGORY OF PERSONNEL, PERCENTAGE DIFFERENCE IN FREQUENCY OF TASK PERFORMANCE BETWEEN CATEGORIES OF PERSONNEL AND CRITICALITY WITHIN THE FUNCTIONAL AREA OF OBSERVATION AND COMMUNICATION: E-1. Observation, Analysis, Interpretation

Task	Level*	Frequency (Percent of personnel saying task is performed "daily," or "almost daily," or "several times a week.") All Personnel (N=398) Rank	All Personnel (N=398) Percent	Staff Nurse (N=137) Rank	Staff Nurse (N=137) Percent	LVN/LPN (N=130) Rank	LVN/LPN (N=130) Percent	Nurses Aide (N=131) Rank	Nurses Aide (N=131) Percent	Percent Difference RN Versus LVN/LPN	Percent Difference RN Versus Aide	Percent Difference LVN Versus Aide	Criticality Score	Criticality Rank	p**
114. Observe objective signs and symptoms of illness, disorder, body malfunctions, e.g., skin rashes, swelling, bleeding.	ALL	1	89.2	5	92.7	2	95.4	1	79.4	-2%	+14%	+16%	3.5	3.16	.001
112. Observe patient's general physical condition, e.g., color of skin and mucous membranes, condition of skin, eyes.	ALL	2	88.7	3.5	93.4	1	97.7	5.5	74.8	-5%	+18%	+23%	3.5	6.16	.001
115. Observe general emotional condition, e.g., facial expression, expression of eyes, posture, quality of voice, consciousness.	ALL	3	86.7	1.5	94.2	3.5	90.8	5.5	74.8	+3%	+19%	+16%	3.5	6.16	.001
120. Identify patient needs and/or problems, e.g., food, oxygen, affection, recognition.	RN,LVN	4	84.7	3.5	93.4	5	88.5	7	71.8	+4%	+21%	+17%	3.83	4.5	.001
117. Observe positive physical and emotional responses to treatments, medications, nursing care, e.g., decreased bleeding.	ALL	5	83.9	1.5	94.2	3.5	90.8	8	66.4	+3%	+28%	+25%	4.0	2.5	.001
121. Identify approaches and/or solutions for needs and/or problems, e.g., change patient's position, praise for efforts.	RN,LVN	6.5	82.4	7.5	87.6	9	82.3	2.5	77.1	+6%	+11%	+5%	3.83	4.5	n.s.
116. Observe general behavior, e.g., conversation; interactions with family, personnel, patients; eating habits; biting nails.	ALL	6.5	82.4	9	86.1	7	85.4	4	75.6	+1%	+10%	+9%	3.5	6.16	.05
118. Observe negative physical and emotional responses to treatments, medications, nursing care, e.g., decreased communication.	ALL	8.5	80.2	6	90.5	6	86.9	9	62.6	+4%	+28%	+24%	4.0	2.5	.001

*Appropriateness of task to category of personnel as determined by the National Advisory Committee.
**Level of significance for Chi-square computed on 2x3 tables comparing frequency of task performance by category of personnel.
n.s. indicates p value greater than .05.

Table 17.
(Continued)

APPROPRIATE LEVEL, FREQUENCY OF TASK PERFORMANCE BY CATEGORY OF PERSONNEL, PERCENTAGE DIFFERENCE IN FREQUENCY OF TASK PERFORMANCE BETWEEN CATEGORIES OF PERSONNEL AND CRITICALITY WITHIN THE FUNCTIONAL AREA OF OBSERVATION AND COMMUNICATION: E-1. Observation, Analysis, Interpretation

Task	Level*	Frequency (Percent of personnel saying task is performed "daily," or "almost daily," or "several times a week.")								Percent Difference			Criticality		p**
		All Personnel (N=398)		Staff Nurse (N=137)		LVN/LPN (N=130)		Nurses Aide (N=131)		RN Versus LVN/LPN	RN Versus Aide	LVN Versus Aide	Score	Rank	
		Rank	Percent	Rank	Percent	Rank	Percent	Rank	Percent						
113. Observe patient's general appearance, e.g., dress, condition of clothing, presence or absence of body odors, use of make-up.	ALL	8.5	80.2	11	78.8	8	84.6	2.5	77.1	-6%	+2%	+8%	3.16	14.0	n.s.
119. Interpret patient's signs, symptoms, behavior, e.g., increase in jaundice, pacing of floor.	RN,LVN	10	73.9	7.5	87.6	10.5	79.2	12	54.2	+9%	+34%	+25%	4.16	1.0	.001
122. Make plan for patient care, e.g., identify problem or need, secure information about need or problem.	ALL	11	71.6	10	80.3	10.5	76.2	10	58.0	+4%	+22%	+18%	3.5	6.16	.001
124.1 Identify strengths, weaknesses in patient care.	ALL	12	68.1	12.5	73.0	12	75.4	11	55.7	-2%	+17%	+19%	3.33	12.0	.001
124.2 Seek guidance to understand and improve performance in patient care.	ALL	13	60.3	14	59.9	13	68.5	13	52.7	-9%	+7%	+16%	3.33	12.0	.05
123. Suggest and/or make changes in plan of care.	ALL	14	52.8	12.5	73.0	14	51.5	14	32.8	+21%	+40%	+19%	3.5	6.16	.001

*Appropriateness of task to category of personnel as determined by the National Advisory Committee.
**Level of significance for Chi-square computed on 2x3 tables comparing frequency of task performance by category of personnel.
n.s. indicates p value greater than .05.

although at the high end of the distribution in this case. For example, nine of the 14 tasks fall between 89.2 percent and 80.2 percent, all personnel, the lowest frequency for any task being 52.8 percent. This might suggest that the lack of variation in criticality scores is a function of the narrow range of frequency of performance, as appeared to be the case with D-2. It may be observed that this area is composed of a homogeneous set of tasks, i.e., all of them organized around attention to the patient's condition, just as in D-2, the set of tasks was oriented to providing specified treatment.

Eleven of the 14 tasks in this sub-area were deemed by the Advisory Committee to be appropriate to all personnel (#112-118, 122, 123, 124.1-2). The remaining three tasks (#119-121) were thought to be joint responsibilities of the RN and LVN/LPN.

Like preceding areas, the general nursing tasks, with the exception of #113 ("Observe patient's general appearance"), were differentiated by category of personnel. Instead of being differentiated in the direction of performance by the LVN/LPN and Aide, however, eight of the 14 tasks showed a statistically significant tendency toward performance by the RN and LVN/LPN (#112, 114-122, 124.1). Task #123 ("Suggest and/or make changes in plan of care") displayed a gradient from RN to Aide, with the RN definitely the frequent performer. The LVN/LPN was the most frequent performer of Task #124.2 ("Seek guidance to understand and improve performance of patient care").

Of the three tasks seen as the province of the RN and LVN/LPN, #119 ("Interpret patient's signs . . . ") was clearly differentiated in this fashion ($p \leq .001$). Task #120 ("Identify patient needs and/or problems") followed the pattern of #119, but fell short of statistical significance. Task #121 ("Identify approaches and/or solutions for needs and/or problems . . . ") was undifferentiated.

The pattern of differentiation noted above was, for most tasks, quite well defined. It should be noted that, for many tasks, even the category of personnel performing least frequently relative to other categories, still performed frequently in absolute terms. For example, Tasks #112, 114, 115 and 120 all showed differentiation in the direction of performance by the RN and LVN/LPN (significant at $p \leq .001$ in each case). Yet, 79.4 percent of the Aides reported performing Task #112 frequently; frequency figures for Aides for #114, 115 and 120 are, respectively, 79.4, 74.8 and 71.8 percent.

General Remarks

This area is characterized by tasks which occur with relatively high frequency in the daily routines of nursing personnel. In addition, the tasks are deemed to be relatively critical. In the judgment of the Advisory Committee, the overwhelming majority of these activities are the proper responsibility of all nursing occupations. Although a large proportion of these tasks show statistically significant differentiation in performance by category of personnel (toward the RN and LVN/LPN), this should not obscure the fact that all three nursing professions participate to a large extent in discharging these duties. Hence, a basic part of a curriculum for the training of the respective types of nursing personnel must continue to provide units emphasizing these skills, and where such units are lacking or underdeveloped, they should be added or improved.

Table 17-A. APPROPRIATE LEVEL, FREQUENCY OF TASK PERFORMANCE BY CATEGORY OF PERSONNEL, PERCENTAGE DIFFERENCE IN FREQUENCY OF TASK PERFORMANCE BETWEEN CATEGORIES OF PERSONNEL AND CRITICALITY WITHIN THE FUNCTIONAL AREA OF OBSERVATION AND COMMUNICATION: E-1. Observation, Analysis, Interpretation (Sub-tasks)

Task	Level*	Frequency (Percent of personnel saying task is performed "daily," or "almost daily," or "several times a week.")								Percent Difference			Criticality		p**
		All Personnel (N=398)		Staff Nurse (N=137)		LVN/LPN (N=130)		Nurses Aide (N=131)		RN Versus LVN/LPN	RN Versus Aide	LVN Versus Aide	Score	Rank	
		Rank	Percent	Rank	Percent	Rank	Percent	Rank	Percent						
124.0 Evaluate participation in patient care:															
124.1 Identify strengths, weaknesses.	ALL	1	68.1	1	73.0	1	75.4	1	55.7	-2%	+17%	+19%	3.33	1.5	.001
124.2 Seek guidance to understand and improve performance.	ALL	2	60.3	2	59.9	2	68.5	2	52.7	-9%	+7%	+16%	3.33	1.5	.05

*Appropriateness of task to category of personnel as determined by the National Advisory Committee.
**Level of significance for Chi-square computed on 2x3 tables comparing frequency of task performance by category of personnel.
n.s. indicates p value greater than .05.

2. Oral and Written Communication

Description of the Area

Nursing area E-2 of Functional Area E, "Oral and Written Communication," encompasses 50 tasks. These tasks may be classified into five categories: (a) "Record and obtain information on patient and nursing care" (#125.1-8, 126.1-3, 127.1-4 and 128-130); (b) "Communicate with patient" (#131.1, 132.1, 133.1); (c) "Communicate with other personnel" (#131.3-4, 132.3-4, 133.3-4 and 134.1-3); (d) "Communicate with patient's family" (#131.2, 132.2, 133.2); and (e) "Instruct patient, patient's family and other personnel" (#135.1-2, 136.1-6, 137.1-5, 138.1-3 and 139). These five categories represent activities directed toward observing and reporting information about the patient and his care and initiating a flow of information between the relevant parties involved, i.e., staff, patient, and the patient's family.

In contrast to the relatively constricted range of frequency in Functional Area E-1, frequency of past performance reported by all personnel in this area ranges from 79.1 percent (#125.3, "Record output . . . ") to 10.1 percent (#130, "Attend demonstrations of procedures and equipment"), a range of 69.0 percent (7th of 16 overall). (See Table 18.) The mid-most task is between #136.1 ("Teach patient, family, personnel, general hygiene," 46.5%, all personnel) and #137.3 ("Teach patient, family, personnel, skin care," 44.7%, all personnel). The frequency of the mid-most task is 45.6 percent, third highest of all the areas.

Tasks #137.1 ("Teach patient, family, personnel in relation to treatments") and 137.2 ("Teach patient, family, personnel in relation to medications") share a criticality score of 4.0 ("above average"), the highest in this sub-area. Task #129 ("Attend unit report") received the low score of 1.83 (close to "moderate" criticality). The median criticality score for the distribution of 50 tasks was 2.86 ("nearly average" criticality), ninth overall.

The top 25 tasks had a median criticality score of 2.74, very close to the median of the overall distribution. The bottom 25 tasks had a slightly higher median criticality score of 3.26. This is consistent with previously observed areas in which the range of the frequency distribution of tasks is not constricted; higher frequency performance, lower criticality.

Thirty-two of the 50 tasks in this area were judged by the Advisory Committee to be appropriate to all personnel (#125.1-8. 126.1-3, 127.1, 127.4, 128-130, 132.1-4, 133.1-4, 134.1-3, 136.1, 136.4, 138.2 and 139). Fourteen were seen as the function of the RN and LVN/LPN (127.2-3, 135.1-2, 136.2-3, 136.6, 137.1-5, 138.1, 138.3). Four tasks (#131.1-4) were not judged.

The vast majority of tasks labeled as appropriate to all personnel were differentiated in practice. Only five (#127.4, 128, 129, 130, 134.1) were frequently performed by roughly the same proportion of personnel in each category. Twenty tasks were most frequently performed by the RN and LVN/LPN (#125.5, 125.7-8, 126.2-3, 127.1, 132.1-4, 133.1-4, 134.3, 136.1, 136.4, 136.5, 138.2 and 139); by and large, these displayed large differences in frequency between the latter two categories and the Aide. (Levels of significance ranged from .05 to .001.) Four tasks were predominantly performed by LVN/LPNs (#125.1-4)

Table 18. APPROPRIATE LEVEL, FREQUENCY OF TASK PERFORMANCE BY CATEGORY OF PERSONNEL, PERCENTAGE DIFFERENCE IN FREQUENCY OF TASK PERFORMANCE BETWEEN CATEGORIES OF PERSONNEL AND CRITICALITY WITHIN THE FUNCTIONAL AREA OF OBSERVATION AND COMMUNICATION: E-2. Oral and Written Communication

Task	Level*	Frequency (Percent of personnel saying task is performed "daily," or "almost daily," or "several times a week.")								Percent Difference			Criticality		p**
		All Personnel (N=398)		Staff Nurse (N=137)		LVN/LPN (N=130)		Nurses Aide (N=131)		RN Versus		LVN Versus			
		Rank	Percent	Rank	Percent	Rank	Percent	Rank	Percent	LVN/LPN	Aide	Aide	Score	Rank	
125.3 Record output--drainage, discharge, urine, bowel movements.	ALL	1	79.1	12	75.2	1	93.8	2	68.7	-19%	+6%	+25%	2.83	28.16	.001
125.7 Recording nursing care.	ALL	2	77.9	4	85.4	3	90.0	6	58.0	-5%	+27%	+32%	3.0	21.14	.001
125.2 Record temperature, pulse, respiration, blood pressure.	ALL	3	77.6	10	78.8	2	93.1	5	61.1	-14%	+18%	+32%	2.83	28.16	.001
127.1 Read and obtain information from charts.	ALL	4	77.4	1	89.1	6	87.7	7	55.0	+1%	+34%	+33%	2.5	38.14	.001
125.4 Record intake--oral liquids and solids, parenteral.	ALL	5	76.4	14.5	73.7	4.5	89.2	3	66.4	-15%	+8%	+23%	2.83	28.16	.001
131.1 Talk with patient.	NO JDGMT	6	75.6	6.5	80.3	8.5	82.3	4	64.1	-2%	+16%	+18%	2.5	38.14	.001
125.8 Record observations of behavior, responses to therapy and care.	ALL	7	74.4	3	86.1	4.5	89.2	12	47.3	-3%	+39%	+42%	3.5	13.5	.001
133.1 Obtain information from patient.	ALL	8	70.6	8.5	79.6	8.5	82.3	11	49.6	-2%	+30%	+32%	2.16	47.5	.001
134.2 Obtain guidance from head nurse.	ALL	9	67.6	22.5	55.5	10.5	75.4	1	72.5	-19%	-17%	+2%	2.83	28.16	.001
125.5 Record tests, treatments, procedures.	ALL	10	67.1	5	82.5	7	83.8	20.5	34.4	-1%	+49%	+50%	3.0	21.14	.001
131.3 Talk with personnel.	ALL	11.5	65.6	8.5	79.6	12	74.6	15	42.0	+5%	+38%	+33%	2.5	38.14	.001
133.3 Obtain information from personnel.	ALL	11.5	65.6	6.5	80.3	13	73.1	14	42.7	+7%	+37%	+30%	2.66	34.25	.001
125.1 Record height, weight.	ALL	13	60.6	21	56.2	10.5	75.4	10	50.4	-19%	+6%	+25%	2.66	34.25	.001
131.2 Talk with family.	ALL	14	59.8	14.5	73.7	14	70.0	18.5	35.1	+4%	+39%	+35%	2.5	38.14	.001
132.1 Give information to patient.	ALL	15.5	59.3	13	74.5	15	66.2	17	36.6	+9%	+38%	+29%	3.0	21.14	.001
129. Attend unit report.	ALL	15.5	59.3	18	66.4	19	59.2	9	51.9	+7%	+14%	+7%	1.83	50.0	n.s.
139. Orient patient, family to hospital, e.g., routines, regulations, physical facilities, personnel.	ALL	17	59.0	17	67.2	16	65.4	13	44.3	+2%	+23%	+21%	3.33	15.33	.001

*Appropriateness of task to category of personnel as determined by the National Advisory Committee.
**Level of significance for Chi-square computed on 2x3 tables comparing frequency of task performance by category of personnel.
n.s. indicates p value greater than .05.

Table 18.
(Continued)

APPROPRIATE LEVEL, FREQUENCY OF TASK PERFORMANCE BY CATEGORY OF PERSONNEL, PERCENTAGE DIFFERENCE IN FREQUENCY OF TASK PERFORMANCE BETWEEN CATEGORIES OF PERSONNEL AND CRITICALITY WITHIN THE FUNCTIONAL AREA OF OBSERVATION AND COMMUNICATION: E-2. Oral and Written Communication

Task	Level*	Frequency (Percent of personnel saying task is performed "daily," or "almost daily," or "several times a week.") All Personnel (N=398) Rank	All Personnel (N=398) Percent	Staff Nurse (N=137) Rank	Staff Nurse (N=137) Percent	LVN/LPN (N=130) Rank	LVN/LPN (N=130) Percent	Nurses Aide (N=131) Rank	Nurses Aide (N=131) Percent	Percent Difference RN Versus LVN/LPN	Percent Difference RN Versus Aide	Percent Difference LVN Versus Aide	Criticality Score	Criticality Rank	p**
136.3 Teach patient, family, personnel in the prevention of infection.	RN,LVN	32	39.4	30	48.2	31.5	46.9	34.5	22.9	+1%	+25%	+24%	3.33	15.33	.001
132.4 Give information to health team.	ALL	33	39.2	28	51.8	36	40.0	27.33	25.2	+12%	+27%	+15%	3.0	21.14	.001
137.4 Teach patient, family, personnel in relation to body alignment.	RN,LVN	34	38.2	40	39.4	27.5	50.8	30.5	24.4	-12%	+15%	+27%	3.83	3.5	.001
138.1 Teach patient, family, personnel exercise,ambulation.	RN,LVN	35	36.9	34.25	43.8	38.5	38.5	24	28.2	+5%	+16%	+11%	3.66	5.12	.05
127.2 Read and obtain information on patient condition and care from reference books (nursing).	RN,LVN	36	36.2	32.5	44.5	38.5	38.5	27.33	25.2	+6%	+20%	+14%	2.16	47.5	.01
136.6 Teach patient, family, personnel in nutrition.	RN,LVN	37	33.7	34.25	43.8	37	39.2	39	17.6	+5%	+26%	+21%	3.5	13.5	.001
137.5 Teach patient, family, personnel in care of equipment.	RN,LVN	38	33.4	42	33.6	33	43.1	33	23.7	-9%	+10%	+19%	3.66	5.12	.01
137.1 Teach patient, family, personnel in relation to treatments.	RN,LVN	39	31.9	39	40.9	34.5	40.8	42.33	13.7	0	+27%	+27%	4.0	1.5	.001
138.2 Teach patient, family, personnel in relation to rehabilitation, activities of daily living.	ALL	40	29.6	41	35.0	40	32.3	36.33	21.4	+3%	+14%	+11%	3.66	5.12	.05
127.4 Read and obtain information on patient condition and care from procedure books.	ALL	41	26.6	44	26.3	41	30.0	32	23.7	-4%	+2%	+6%	2.5	38.14	n.s.
126.1 Write report on patient census.	ALL	42.5	24.6	38	41.6	45	23.8	47	7.6	+18%	+34%	+16%	2.33	45.5	.001
137.2 Teach patient, family, personnel in relation to medications.	RN,LVN	42.5	24.6	34.25	43.8	43.5	24.6	49	4.6	+19%	+39%	+20%	4.0	1.5	.001
138.3 Teach patient, family, personnel in relation to bowel and bladder training.	RN,LVN	44	23.4	45.5	24.8	42	29.2	40	16.0	-4%	+9%	+13%	3.66	5.125	.05

*Appropriateness of task to category of personnel as determined by the National advisory Committee.
**Level of significance for Chi-square computed on 2x3 tables comparing frequency of task performance by category of personnel.
n.s. indicates p value greater than .05.

Table 18.
(Continued)

APPROPRIATE LEVEL, FREQUENCY OF TASK PERFORMANCE BY CATEGORY OF PERSONNEL, PERCENTAGE DIFFERENCE IN FREQUENCY OF TASK PERFORMANCE BETWEEN CATEGORIES OF PERSONNEL AND CRITICALITY WITHIN THE FUNCTIONAL AREA OF OBSERVATION AND COMMUICATION: E-2. Oral and Written Communication

Task	Level*	Frequency (Percent of personnel saying task is performed "daily," or "almost daily," or "several times a week.")								Percent Difference			Criticality		p**
		All Personnel (N=398)		Staff Nurse (N=137)		LVN/LPN (N=130)		Nurses Aide (N=131)		RN Versus		LVN Versus			
		Rank	Percent	Rank	Percent	Rank	Percent	Rank	Percent	LVN/LPN	Aide	Aide	Score	Rank	
132.3 Give information to personnel.	ALL	18	57.8	11	76.6	18	60.8	18.5	35.1	+16%	+42%	+26%	3.0	21.14	.001
133.2 Obtain information from family.	ALL	19	54.5	16	68.6	17	64.6	23	29.8	+4%	+39%	+35%	2.66	34.25	.001
134.1 Talk with team leader to obtain guidance.	ALL	20	50.8	34.25	43.8	20.5	56.2	8	52.7	-12%	-9%	+3%	2.83	28.16	n.s.
134.3 Talk with supervisor to obtain guidance.	ALL	21	50.3	22.5	55.5	20.5	56.2	16	38.9	0	+17%	+17%	2.83	28.16	.01
125.6 Record physician's orders.	ALL	22.5	47.7	2	86.9	34.5	40.8	42.33	13.7	+46%	+73%	+27%	3.66	5.125	.001
126.2 Write reports on patient's condition.	ALL	22.5	47.7	19	65.7	27.5	50.8	26	26.0	+15%	+40%	+25%	3.16	18.33	.001
135.2 Teach patient, family, personnel in relation to objective of nursing care of current illness, convalescence.	RN,LVN	24	47.2	20	61.3	23	54.6	27.33	25.2	+6%	+36%	+30%	3.66	5.125	.001
136.1 Teach patient, family, personnel general hygiene in relation to prevention of illness and promotion of health.	ALL	25	46.5	27	53.3	24	53.8	22	32.1	-1%	+21%	+22%	3.0	21.14	.001
137.3 Teach patient, family, personnel in skin care.	RN,LVN	26	44.7	32.5	44.5	22	55.4	20.5	34.4	-10%	+11%	+21%	3.83	3.5	.01
132.2 Give information to family.	ALL	27.5	42.7	24.5	54.7	25.5	51.5	36.33	21.4	+3%	+34%	+31%	3.0	21.14	.001
135.1 Teach patient, family, personnel physician's plan of care.	RN,LVN	27.5	42.7	24.5	54.7	25.5	51.5	36.33	21.4	+3%	+34%	+31%	3.66	5.12	.001
133.4 Talk with health team to obtain information.	ALL	29	42.2	26	54.0	30	47.7	30.5	24.4	+6%	+30%	+24%	2.66	34.25	.001
131.4 Talk with health team.	NO JDGMT	30.5	40.5	29	51.1	31.5	46.9	34.5	22.9	+4%	+28%	+24%	2.5	38.14	.001
136.4 Teach patient, family, personnel prevention of accidents.	ALL	30.5	40.5	31	45.3	29	49.2	25	26.7	-4%	+18%	+22%	3.66	5.125	.001

*Appropriateness of task to category of personnel as determined by the National Advisory Committee.
**Level of significance for Chi-square computed on 2x3 tables comparing frequency of task performance by category of personnel.
n.s. indicates p value greater than .05.

Table 18.
(Continued)

APPROPRIATE LEVEL, FREQUENCY OF TASK PERFORMANCE BY CATEGORY OF PERSONNEL, PERCENTAGE DIFFERENCE IN FREQUENCY OF TASK PERFORMANCE BETWEEN CATEGORIES OF PERSONNEL AND CRITICALITY WITHIN THE FUNCTIONAL AREA OF OBSERVATION AND COMMUNICATION: E-2. Oral and Written Communication

Task	Level*	Frequency (Percent of personnel saying task is performed "daily," or "almost daily," or "several times a week.")								Percent Difference			Criticality		p**
		All Personnel (N=398)		Staff Nurse (N=137)		LVN/LPN (N=130)		Nurses Aide (N=131)		RN Versus		LVN Versus			
		Rank	Percent	Rank	Percent	Rank	Percent	Rank	Percent	LVN/LPN	Aide	Aide	Score	Rank	
136.2 Teach patient, family, personnel in relation to physical examination.	RN,LVN	45	20.6	43	28.5	43.5	24.6	46	8.4	+4%	+21%	+17%	3.16	18.33	.001
127.3 Read and obtain information on patient care from dietary manuals.	RN,LVN	46	18.3	45.5	24.8	46	18.5	45	11.5	+6%	+13%	+7%	2.5	38.14	.05
128. Attend nursing care conferences.	ALL	47	15.1	49	14.6	47.5	16.2	4I	14.5	-1%	0	+1%	2.33	45.5	n.s.
126.3 Write reports on accidents, incidents.	ALL	48	12.8	48	15.3	47.5	16.2	48	6.9	-1%	+8%	+9%	3.16	18.33	.05
136.5 Teach patient, family, personnel in relation to prevention of cancer.	ALL	49	10.6	47	16.8	49	11.5	50	3.1	+5%	+14%	+9%	3.33	15.33	.01
130. Attend demonstrations of procedures and equipment.	ALL	50	10.1	50	8.0	50	8.5	42.33	13.7	-1%	-6%	-5%	2.0	49.0	n.s.

*Appropriateness of task to category of personnel as determined by the National Advisory Committee.
**Level of significance for Chi-square computed on 2x3 tables comparing frequency of task performance by category of personnel.
n.s. indicates p value greater than .05.

and two tasks (#125.6, 126.1) were mainly the province of the RN, all six patterns significant at or beyond .001. One task (#132.2) was differentiated in the direction of the LVN/LPN and Aide ($p \leq .001$).

Of the 14 tasks judged by the Advisory Committee to be the responsibility of the RN and LVN/LPN, all but three, in fact, displayed such a pattern of performance. Two of these three (#137.2-3) were predominantly performed by the RN ($p \leq .01$ and $p \leq .001$, respectively) and one (#137.4) was most frequently performed by the LVN/LPN ($p \leq .001$). All four tasks on which no judgment was available (#131.1-4) displayed a pattern of predominant performance by the RN and LVN/LPN ($p \leq .001$). (See Table 18-A.)

On the basis of the above, it is clear that in practice, tasks in this area are clearly and consistently differentiated. While the Nurses' Aide by no means plays a small role in this sub-area, the RN and LVN/LPN stand out as the key personnel in the execution of these tasks.

General Remarks

While it must be kept in mind that Aides participate to an important extent in the activities included in this area, the often striking percentage differences in frequency of performance between the Aide and the other two nursing occupations should be noted. There is, perhaps, a simple explanation of these large differences. Most of the tasks in this area involve verbal exchanges; some of them require nursing personnel to assume a teaching function. A few tasks require the production of records of the patient's condition and of the physician's instructions. Conducting activities of this sort probably falls to the RN and LVN/LPN by virtue of their greater training, and the authority implicit in that training. With regard to the matter of authority, the status of the nursing occupation involved is also a relevant consideration, e.g., in dealings with physicians and with patients' families.

In terms of curricular development, the skills involved here (apart from competence in a number of technical matters, e.g., treatment procedures, proper recording of physician's orders, etc.) are interactional: effective communication with others, and problem-solving ability. Even though tasks requiring these skills are predominantly performed by the RN and LVN/LPN, some attention might be given to the development of these capacities in the Aide, since the latter category is involved in important interactions with patients, their families, and to some extent, physicians.

Table 18-A. APPROPRIATE LEVEL, FREQUENCY OF TASK PERFORMANCE BY CATEGORY OF PERSONNEL, PERCENTAGE DIFFERENCE IN FREQUENCY OF TASK PERFORMANCE BETWEEN CATEGORIES OF PERSONNEL AND CRITICALITY WITHIN THE FUNCTIONAL AREA OF OBSERVATION AND COMMUNICATION: E-2. Oral and Written Communication (Sub-tasks)

Task	Level*	Frequency (Percent of personnel saying task is performed "daily," or "almost daily," or "several times a week.")								Percent Difference			Criticality		p**
		All Personnel (N=398)		Staff Nurse (N=137)		LVN/LPN (N=130)		Nurses Aide (N=131)		RN Versus		LVN Versus			
		Rank	Percent	Rank	Percent	Rank	Percent	Rank	Percent	LVN/LPN	Aide	Aide	Score	Rank	
125.0 Record information on patient's chart and/or Kardex:															
125.3 Output--drainage, discharge, urine, bowel movements.	ALL	1	79.1	6	75.2	1	93.8	1	68.7	-19%	+6%	+25%	2.83	5.33	.001
125.7 Nursing care.	ALL	2	77.9	3	85.4	3	90.0	4	58.0	-5%	+27%	+32%	3.0	3.5	.001
125.2 Temperature, pulse, respiration, blood pressure.	ALL	3	77.6	5	78.8	2	93.1	3	61.1	-14%	+18%	+32%	2.83	5.33	.001
125.4 Intake--oral liquids and solids, parenteral.	ALL	4	76.4	7	73.7	4.5	89.2	2	66.4	-15%	+8%	+23%	2.83	5.33	.001
125.8 Observations of behavior, responses to therapy and care.	ALL	5	74.4	2	86.1	4.5	89.2	6	47.3	-3%	-39%	+42%	3.5	2.0	.001
125.5 Tests, treatments, procedures.	ALL	6	67.1	4	82.5	6	83.8	7	34.4	-1%	+49%	+50%	3.0	3.5	.001
125.1 Height, weight.	ALL	7	60.6	8	56.2	7	75.4	5	50.4	-19%	+6%	+25%	2.66	8.0	.001
125.6 Physician's orders.	ALL	8	47.7	1	86.9	8	40.8	8	13.7	+46%	+73%	+27%	3.66	1.0	.001
126.0 Write reports:															
126.2 Patient condition.	ALL	1	47.7	1	65.7	1	50.8	1	26.0	+15%	+40%	+25%	3.16	1.5	.001
126.1 Patient census.	ALL	2	24.6	2	41.6	2	23.8	3	7.6	+18%	+34%	+16%	2.33	3.0	.001
126.3 Accidents/incidents.	ALL	3	12.8	3	15.3	3	16.2	2	6.9	-1%	+8%	+9%	3.16	1.5	.05
127.0 Read and obtain information on patient's condition and care:															
127.1 Charts.	ALL	1	77.4	1	89.1	1	87.7	1	55.0	+1%	+34%	+33%	2.5	1.33	.001
127.2 Reference books (nursing).	RN,LVN	2	36.2	2	44.5	2	38.5	2	25.2	+6%	+20%	+14%	2.16	4.0	.01
127.4 Procedure books.	ALL	3	26.6	3	26.3	3	30.0	3	23.7	-4%	+2%	+6%	2.5	1.33	n.s.
127.3 Dietary manuals.	RN,LVN	4	18.3	4	24.8	4	18.5	4	11.5	+6%	+13%	+7%	2.5	1.33	.05

*Appropriateness of task to category of personnel as determined by the National Advisory Committee.
**Level of significance for Chi-square computed on 2x3 tables comparing frequency of task performance by category of personnel.
n.s. indicates p value greater than .05.

Table 18-A.
(Continued)

APPROPRIATE LEVEL, FREQUENCY OF TASK PERFORMANCE BY CATEGORY OF PERSONNEL, PERCENTAGE DIFFERENCE IN FREQUENCY OF TASK PERFORMANCE BETWEEN CATEGORIES OF PERSONNEL AND CRITICALITY WITHIN THE FUNCTIONAL AREA OF OBSERVATION AND COMMUNICATION: E-2. Oral and Written Communication (Sub-tasks)

Task	Level*	Frequency (Percent of personnel saying task is performed "daily," or "almost daily," or "several times a week.")								Percent Difference			Criticality		p**
		All Personnel (N=398)		Staff Nurse (N=137)		LVN/LPN (N=130)		Nurses Aide (N=131)		RN Versus		LVN Versus			
		Rank	Percent	Rank	Percent	Rank	Percent	Rank	Percent	LVN/LPN	Aide	Aide	Score	Rank	
131.0 Talk with individuals and/or groups:															
131.1 Patient.	NO JDGMT	1	75.6	1	80.3	1	82.3	1	64.1	-2%	+16%	+18%	2.5	1.25	.001
131.3 Personnel.	ALL	2	65.6	2	79.6	2	74.6	2	42.0	+5%	+38%	+33%	2.5	1.25	.001
131.2 Family.	ALL	3	59.8	3	73.7	3	70.0	3	35.1	+4%	+39%	+35%	2.5	1.25	.001
131.4 Health team.	NO JDGMT	4	40.5	4	51.1	4	46.9	4	22.9	+4%	+28%	+24%	2.5	1.25	.001
132.0 Talk with individuals and/or groups to give information:															
132.1 Patient.	ALL	1	59.3	2	74.5	1	66.2	1	36.6	+9%	+38%	+29%	3.0	1.25	.001
132.3 Personnel.	ALL	2	57.8	1	76.6	2	60.8	2	35.1	+16%	+42%	+26%	3.0	1.25	.001
132.2 Family.	ALL	3	42.7	3	54.7	3	51.5	4	21.4	+3%	+34%	+31%	3.0	1.25	.001
132.4 Health team.	ALL	4	39.2	4	51.8	4	40.0	3	25.2	+12%	+27%	+15%	3.0	1.25	.001
133.0 Talk with individuals and/or groups to obtain information:															
133.1 Patient.	ALL	1	70.6	2	79.6	1	82.3	1	49.6	-2%	+30%	+32%	2.16	4.0	.001
133.3 Personnel.	ALL	2	65.6	1	80.3	2	73.1	2	42.7	+7%	+37%	+30%	2.66	1.33	.001
133.2 Family.	ALL	3	54.5	3	68.6	3	64.6	3	29.8	+4%	+39%	+35%	2.66	1.33	.001
133.4 Health team.	ALL	4	42.2	4	54.0	4	47.7	4	24.4	+6%	+30%	+24%	2.66	1.33	.001
134.0 Talk with personnel to obtain guidance:															
134.2 Head nurse.	ALL	1	67.6	1.5	55.5	1	75.4	1	72.5	-19%	-17%	+2%	2.83	1.33	.001
134.1 Team leader.	ALL	2	50.8	3	43.8	2.5	56.2	2	52.7	-12%	-9%	+3%	2.83	1.33	n.s.
134.3 Supervisor.	ALL	3	50.3	1.5	55.5	2.5	56.2	3	38.9	0	+17%	+17%	2.83	1.33	.01

*Appropriateness of task to category of personnel as determined by the National Advisory Committee.
**Level of significance for Chi-square computed on 2x3 tables comparing frequency of task performance by category of personnel.
n.s. indicates p value greater than .05.

Table 18-A.
(Continued)

APPROPRIATE LEVEL, FREQUENCY OF TASK PERFORMANCE BY CATEGORY OF PERSONNEL, PERCENTAGE DIFFERENCE IN FREQUENCY OF TASK PERFORMANCE BETWEEN CATEGORIES OF PERSONNEL AND CRITICALITY WITHIN THE FUNCTIONAL AREA OF OBSERVATION AND COMMUNICATION: E-2. Oral and Written Communication (Sub-tasks)

Task	Level*	Frequency (Percent of personnel saying task is performed "daily," or "almost daily," or "several times a week.")								Percent Difference			Criticality		p**
		All Personnel (N=398)		Staff Nurse (N=137)		LVN/LPN (N=130)		Nurses Aide (N=131)		RN Versus		LVN Versus			
		Rank	Percent	Rank	Percent	Rank	Percent	Rank	Percent	LVN/LPN	Aide	Aide	Score	Rank	
135.0 Teach patient, family, personnel in relation to current illness, convalescence:															
135.2 Objectives of nursing care.	RN,LVN	1	47.2	1	61.3	1	54.6	1	25.2	+6%	+36%	+30%	3.66	1.5	.001
135.1 Physician's plan of care.	RN,LVN	2	42.7	2	54.7	2	51.5	2	21.4	+3%	+34%	+31%	3.66	1.5	.001
136.0 Teach patient, family, personnel in relation to prevention of illness and promotion of health:															
136.1 General hygiene.	ALL	1	46.5	1	53.3	1	53.8	1	32.1	-1%	+21%	+22%	3.0	6.0	.001
136.4 Prevention of accidents.	ALL	2	40.5	3	45.3	2	49.2	2	26.7	-4%	+18%	+22%	3.66	1.0	.001
136.3 Prevention of infections.	RN,LVN	3	39.4	2	48.2	3	46.9	3	22.9	+1%	+25%	+24%	3.33	3.5	.001
136.6 Nutrition.	RN,LVN	4	33.7	4	43.8	4	39.2	4	17.6	+5%	+29%	+21%	3.5	2.0	.001
136.2 Physical examination.	RN,LVN	5	20.6	5	28.5	5	24.6	5	8.4	+4%	+21%	+17%	3.16	5.0	.001
136.5 Prevention of cancer.	ALL	6	10.6	6	16.8	6	11.5	6	3.1	+5%	+14%	+9%	3.33	3.5	.01
137.0 Teach patient, family, personnel in relation to supportive nursing care and nursing procedures:															
137.3 Skin care.	RN,LVN	1	44.7	1	44.5	1	55.4	1	34.4	-10%	+11%	+21%	3.83	3.5	.01
137.4 Body alignment.	RN,LVN	2	38.3	4	39.4	2	50.8	2	24.4	-12%	+15%	+27%	3.83	3.5	.001
137.5 Care of equipment.	RN,LVN	3	33.4	5	33.6	3	43.1	3	23.7	-9%	+10%	+19%	3.66	5.0	.01
137.1 Treatments.	RN,LVN	4	31.9	3	40.9	4	40.8	4	13.7	0	+27%	+27%	4.0	1.5	.001
137.2 Medications.	RN,LVN	5	24.6	2	43.8	5	24.6	5	4.6	+19%	+39%	+20%	4.0	1.5	.001

*Appropriateness of task to category of personnel as determined by the National Advisory Committee.
**Level of significance for Chi-square computed on 2x3 tables comparing frequency of task performance by category of personnel.
n.s. indicates p value greater than .05.

Table 18-A. (Continued)

APPROPRIATE LEVEL, FREQUENCY OF TASK PERFORMANCE BY CATEGORY OF PERSONNEL, PERCENTAGE DIFFERENCE IN FREQUENCY OF TASK PERFORMANCE BETWEEN CATEGORIES OF PERSONNEL AND CRITICALITY WITHIN THE FUNCTIONAL AREA OF OBSERVATION AND COMMUNICATION: B-2. Oral and Written Communication

Task	Level*	Frequency (Percent of personnel saying task is performed "daily," or "almost daily," or "several times a week.")								Percent Difference			Criticality		p**
		All Personnel (N=398)		Staff Nurse (N=137)		LVN/LPN (N=130)		Nurses Aide (N=131)		RN Versus LVN/LPN	RN Versus Aide	LVN Versus Aide	Score	Rank	
		Rank	Percent	Rank	Percent	Rank	Percent	Rank	Percent						
138.0 Teach patient, family, personnel, in relation to rehabilitation:															
138.1 Exercise, ambulation.	RN,LVN	1	36.9	1	43.8	1	38.5	1	28.2	+5%	+16%	+11%	3.66	1.33	.05
138.2 Activities of daily living.	ALL	2	29.6	2	35.0	2	32.3	2	21.4	+3%	+14%	+11%	3.66	1.33	.05
138.3 Bowel and bladder training.	RN,LVN	3	23.4	3	24.8	3	29.2	3	16.0	-4%	+9%	+13%	3.66	1.33	.05

*Appropriateness of task to category of personnel as determined by the National Advisory Committee.
**Level of significance for Chi-square computed on 2x3 tables comparing frequency of task performance by category of personnel. n.s. indicates p value greater than .05.

F. Administration, Coordination, Housekeeping

1. Administration and Coordination

Description of the Area

The nursing area,"Administration and Coordination," is composed of 31 tasks; these tasks may be broken down into three categories: (a) "Administrative duties," (#140, 142, 143, 147, 149.1-3, 150.1-4, 151, 152.1-2, 153.1-2 and 154);1(b) "Housekeeping duties," (#141.1-2, 148.1-5, 155, 156); (c) "Nursing assistance," (#144-146, 149.4, 150.5). In general, this sub-area organizes those tasks that are directed to the supervision of nursing activities in the hospital.

Task #149.4 ("Assist personnel in giving nursing care," 59.5%, all personnel) is the most frequently occurring task; #151 ("Write and/or assist in writing evaluations of performance of unit personnel," 2.5%, all personnel) is the least frequent (see Tables 19, 19-A.) The range of frequency is 57.0 percent, tenth out of 16. The mid-most task was #150.1 ("Assign patients to team members," 23.1%, all personnel); the frequency of the mid-most task ranks tenth among the 16 areas.

The range of criticality scores was from 4.5 (#147, "Check accuracy in administering and charting treatments and medications, procedures, orders, observations," 41.7%, all personnel) to 1.83 (#155, "Deliver requisitions, credits, charges to other departments," 42.2%, all personnel), or from midway between "above average" and "highly critical" to close to "moderate" criticality. The median criticality score for the overall distribution was 2.68 (tending toward "average" criticality) and ranks 12.5 out of 16.

Looking at the distribution of scores above and below the mid-most task (including in each case the mid-most task), the criticality scores are, respectively, 2.76 and 2.68. Thus, the distribution of criticality scores appears fairly uniform over the distribution of frequency of task performance.

Earlier, the inverse relationship between criticality and frequency was discussed in terms of a distinction between "routine" more generalized services and "special" services tailored to particular patient conditions or rare events. The hypothesis was that generalized services tend to be rated as less critical than specialized services. In those cases of a restricted range of frequency, variation in criticality scores across the distribution of frequency of performance would not be as great as in cases of a low range of frequency. It was suggested that a broad range of frequency of performance within a given area was a function of heterogeneity, i.e., a mixture of generalized and specialized services.

In the present case, frequency of task performance exhibits a relatively narrow range. The nature of the tasks mentioned is relatively specialized, although not in terms of therapeutic procedures tailored to specific patient conditions; instead, the tasks are oriented toward record keeping and other services necessary to support both generalized and specialized procedures

Table 19. APPROPRIATE LEVEL, FREQUENCY OF TASK PERFORMANCE BY CATEGORY OF PERSONNEL, PERCENTAGE DIFFERENCE IN FREQUENCY OF TASK PERFORMANCE BETWEEN CATEGORIES OF PERSONNEL AND CRITICALITY WITHIN THE FUNCTIONAL AREA OF ADMINISTRATION, COORDINATION, HOUSEKEEPING:
F-1. Administration and Coordination

Task	Level*	Frequency (Percent of personnel saying task is performed "daily," or "almost daily," or "several times a week.")								Percent Difference			Criticality		p**
		All Personnel (N=398)		Staff Nurse (N=137)		LVN/LPN (N=130)		Nurses Aide (N=131)		RN Versus		LVN Versus			
		Rank	Percent	Rank	Percent	Rank	Percent	Rank	Percent	LVN/LPN	Aide	Aide	Score	Rank	
149.4 Assist personnel in giving nursing care.	RN	1	59.5	2	79.6	1	65.4	4	32.8	+15%	+47%	+32%	3.5	4.5	.001
150.5 Assist team members in giving nursing care.	ALL	2	53.5	6	67.9	2	60.8	5	31.3	+7%	+37%	+30%	2.83	16.25	.001
156. Deliver specimens to laboratory.	NONE	3	52.5	18	42.3	3	57.7	1	58.0	-16%	-16%	0	2.16	25.5	.05
141.1 Check working order of equipment.	ALL	4	51.3	8.5	60.6	4.5	54.6	2	38.2	+6%	+23%	+17%	3.33	6.33	.001
154. Prepare requisitions, credits, charges, e.g., equipment, supplies, treatments, procedures, diets.	NONE	5	51.0	5	74.5	4.5	54.6	6	22.9	+20%	+52%	+32%	2.16	25.5	.001
155. Deliver requisitions, credits, charges to other departments.	NONE	6	42.2	16	46.7	6	45.4	3	34.4	+2%	+13%	+11%	1.83	31.0	n.s.
147. Check accuracy in administering and charting treatments and medications, procedures, orders, observations.	RN	7	41.7	4	77.4	7	40.0	14.5	6.1	+37%	+71%	+34%	4.5	1.0	.001
145. Take and record physician's verbal orders.	NO JDGMT	8.5	37.4	1	80.3	14	26.2	18.25	3.8	+54%	+76%	+22%	3.0	10.16	.001
146. Transcribe physician's orders.	NO JUGMT	8.5	37.4	3	78.1	13	28.5	18.25	3.8	+49%	+74%	+25%	4.33	2.0	.001
144. Assist physician with rounds to patients.	RN,LVN	10	35.4	7	65.7	8	34.6	17	4.6	+31%	+61%	+30%	3.0	10.16	.001
148.5 Take inventory of drugs.	NO JDGMT	11	31.9	8.5	60.6	11.5	30.8	22.5	3.1	+30%	+58%	+28%	2.33	23.5	.001
141.2 Inventory emergency supplies, equipment, drugs.	ALL	12	30.9	14	48.9	10	31.5	10	11.5	+17%	+37%	+20%	2.83	16.25	.001
140. Analyze nursing care requirements and report staffing needs.	RN	13	28.6	19	38.7	15	25.4	7	21.4	+14%	+18%	+4%	3.5	4.5	.01
148.4 Inventory of unit supplies of dressings, tape.	NO JDGMT	14	27.1	20	35.0	9	32.3	9	13.7	+3%	+21%	+18%	2.0	27.25	.001

*Appropriateness of task to category of personnel as determined by the National Advisory Committee.
**Level of significance for Chi-square computed on 2x3 tables comparing frequency of task performance by category of personnel.
n.s. indicates p value greater than .05.

Table 19.
(Continued)

APPROPRIATE LEVEL, FREQUENCY OF TASK PERFORMANCE BY CATEGORY OF PERSONNEL, PERCENTAGE DIFFERENCE IN FREQUENCY OF TASK PERFORMANCE BETWEEN CATEGORIES OF PERSONNEL AND CRITICALITY WITHIN THE FUNCTIONAL AREA OF ADMINISTRATION, COORDINATION, HOUSEKEEPING:
F-1. Administration and Coordination

Task	Level*	Frequency (Percent of personnel saying task is performed "daily," or "almost daily," or "several times a week.")								Percent Difference			Criticality		p**
		All Personnel (N=398)		Staff Nurse (N=137)		LVN/LPN (N=130)		Nurses Aide (N=131)		RN Versus		LVN Versus			
		Rank	Percent	Rank	Percent	Rank	Percent	Rank	Percent	LVN/LPN	Aide	Aide	Score	Rank	
148.3 Inventory unit's disposable and non-disposable equipment.	NO JDGMT	15	23.6	21	30.7	11.5	30.8	13	9.2	0	+22%	+22%	2.0	27.25	.001
150.1 Assign patients to team members.	RN	16	23.1	10.25	52.6	19.5	13.1	24.25	2.3	+40%	+51%	+11%	3.16	9.0	.001
150.2 Assign unit tasks to team members.	NO JDGMT	17	22.9	10.25	52.6	19.5	13.1	28.25	1.5	+40%	+51%	+11%	3.0	10.16	.001
150.3 Supervise and evaluate performance of team members.	RN	18.5	22.4	10.25	52.6	22	11.5	28.25	1.5	+41%	+51%	+10%	3.66	3.0	.001
149.1 Assign patients and personnel to nursing teams.	RN	18.5	22.4	10.25	52.6	23	10.8	24.25	2.3	+42%	+51%	+9%	3.0	10.16	.001
149.3 Supervise and evaluate performance of unit personnel	RN	20	19.6	15	47.4	26	8.5	28.25	1.5	+38%	+45%	+7%	3.33	6.33	.001
149.2 Assign unit tasks to teams.	RN	21	19.1	17	44.5	24	10.0	28.25	1.5	+35%	+43%	+8%	2.83	16.25	.001
148.1 Take inventory of unit linen.	NO JDGMT	22	18.3	23.5	21.2	16	16.9	8	16.8	+4%	+4%	0	2.0	27.25	n.s.
143. Inform personnel of new or changed policies and procedures.	RN	23	15.8	22	24.8	21	12.3	12	9.9	+13%	+15%	+2%	3.33	6.33	.01
142. Orient new personnel to unit facilities, routines and other personnel.	RN	24	13.6	27.5	16.1	18	13.8	11	10.7	+2%	+5%	+3%	3.0	10.16	n.s.
153.2 Initiate service or referral for patient.	RN	25	12.1	27.5	16.1	17	16.2	18.25	3.8	0	+12%	+12%	2.5	20.33	.01
148.2 Take inventory of unit's stationery supplies.	NO JDGMT	26	11.6	26	19.0	25	9.2	14.5	6.1	+10%	+13%	+3%	2.0	27.25	.01
150.4 Conduct nursing care conferences.	RN	27	10.6	23.5	21.2	28	6.9	22.5	3.1	+14%	+18%	+4%	3.0	10.16	.001
152.1 Schedule activities, e.g., physical therapy.	NO JDGMT	28	9.8	25	20.4	29.5	4.6	18.25	3.8	+15%	+16%	+1%	2.33	23.5	.001
153.1 Make recommendations for service or referral.	ALL	29	6.8	29	13.1	29.5	4.6	24.25	2.3	+8%	+11%	+3%	2.5	20.33	.001

*Appropriateness of task to category of personnel as determined by the National Advisory Committee.
**Level of significance for Chi-square computed on 2x3 tables comparing frequency of task performance by category of personnel.
n.s. indicates p value greater than .05.

Table 19.
(Continued)

APPROPRIATE LEVEL, FREQUENCY OF TASK PERFORMANCE BY CATEGORY OF PERSONNEL, PERCENTAGE DIFFERENCE IN FREQUENCY OF TASK PERFORMANCE BETWEEN CATEGORIES OF PERSONNEL AND CRITICALITY WITHIN THE FUNCTIONAL AREA OF ADMINISTRATION, COORDINATION AND HOUSEKEEPING:
F-1. Administration and Coordination

Task	Level*	Frequency (Percent of personnel saying task is performed "daily," or "almost daily," or "several times a week.")								Percent Difference			Criticality		p**
		All Personnel (N=398)		Staff Nurse (N=137)		LVN/LPN (N=130)		Nurses Aide (N=131)		RN Versus		LVN Versus			
		Rank	Percent	Rank	Percent	Rank	Percent	Rank	Percent	LVN/LPN	Aide	Aide	Score	Rank	
152.2 Supervise patient participation, e.g., in activities, dances, games.	RN	30	6.0	30.5	5.1	27	7.7	16	5.3	-3%	0	+3%	2.5	20.33	n.s.
151. Write and/or assist in writing evaluations of performance of unit personnel.	RN	31	2.5	30.5	5.1	31	0.0	24.25	2.3	+5%	+3%	-2%	2.83	16.25	.05

*Appropriateness of task to category of personnel as determined by the National Advisory Committee.
**Level of significance for Chi-square computed on 2x3 tables comparing frequency of task performance by category of personnel.
n.s. indicates p value greater than .05.

for patient care. It will be evident upon examining the division of labor in this area that task performance, itself, is clearly specialized both in theory and in practice.

In the judgment of the Advisory Committee, only four of the 31 tasks were deemed appropriate to all personnel (#141.1-2, 150.5, 153.1). Thirteen tasks were seen as the function of the RN (#140, 142, 143, 147, 149.1, 149.3-4, 150.1, 150.3-4, 151, 152.2, 153.2) and one task (#144) was thought to be the joint responsibility of the RN and LVN/LPN. Three tasks (#154, 155, 156) were not viewed as nursing functions, and the Advisory Committee rendered no judgment on the remaining ten tasks (#145, 146, 148.1-5, 149.2, 150.2, 152.1).

Virtually all tasks in the sub-area were significantly differentiated; the largest number of these were in practice performed mostly by the RN. All the four tasks thought to be appropriate to all personnel were differentiated; two (#141.2 and 153.1) were performed predominantly by the RN ($p \leq .001$). Nine of the 13 tasks designated as the function of the RN were, in fact, almost equally performed by her (#140, 143, $p \leq .01$; #147, 149.1, 149.3,149.4,150.1,150.3-4, $p \leq .001$). One task (#153.2) was performed mostly by the RN and LVN/LPN ($p \leq .001$) and one task (#151) was performed mostly by the RN and Aide ($p \leq .05$). In the latter case, the task was the one least frequently occurring in this sub-area (1.5%, all personnel) and was reported by 5.1 percent of the RNs and 2.3 percent of the Aides. No LVN/LPN reported performing this task frequently. The remaining two tasks in this group (#142, 152.2) were not significantly differentiated.

Of the three tasks judged by the Advisory Committee not to be nursing functions, one (#154) was predominantly performed by the RN ($p \leq .001$), one (#156), by the LVN/LPN and Aide ($p \leq .05$), and one (#155) was not significantly differentiated.

Nine of the tasks on which no judgment was made by the Advisory Committee were differentiated; seven of these were most frequently performed by the RN (#145, 146, 148.2, 148.5, 149.2, 150.2, 152.1, all significant at $p \leq .001$ except #148.2, which was significant to $p \leq .01$). Two were most frequently performed by the RN and LVN/LPN (#148.3 and 148.4, $p \leq .001$) and the remaining task (#148.1) displayed no significant difference in terms of frequency of performance by category of personnel.

General Remarks

It is clear that the majority of tasks in this area were specialized in the sense that they were performed by personnel having the most specialized training and skills, e.g., 19 out of 31 tasks were performed most frequently by the RN. Upon inspecting the frequency of task performance by Aides, it should be noted that the range of distribution is from 58.0 to 1.5 percent, with a steep dropoff in frequency (e.g., the second most frequent task was 38.2 percent, the tenth most frequent, 11.5 percent, compared with 79.6 percent and 52.6 percent, respectively, for the RN and 60.8 percent and 31.5 percent, respectively, for the LVN/LPN.

It seems clear that in the area of administration, the field is left largely to the RN, with some assistance from the LVN/LPN. It is, perhaps, the

Table 19-A APPROPRIATE LEVEL, FREQUENCY OF TASK PERFORMANCE BY CATEGORY OF PERSONNEL, PERCENTAGE DIFFERENCE IN FREQUENCY OF TASK PERFORMANCE BETWEEN CATEGORIES OF PERSONNEL AND CRITICALITY WITHIN THE FUNCTIONAL AREA OF ADMINISTRATION, COORDINATION, HOUSEKEEPING: F-1. Administration and Coordination (Sub-tasks)

Task	Level*	Frequency (Percent of personnel saying task is performed "daily," or "almost daily," or "several times a week.")								Percent Difference			Criticality		p**
		All Personnel (N=398)		Staff Nurse (N=137)		LVN/LPN (N=130)		Nurses Aide (N=131)		RN Versus LVN/LPN	RN Versus Aide	LVN Versus Aide	Score	Rank	
		Rank	Percent	Rank	Percent	Rank	Percent	Rank	Percent						
141.0 Maintain ward safety:															
141.1 Check working order of equipment.	ALL	1	51.3	1	60.6	1	54.6	1	38.2	+6%	+23%	+17%	3.33	1.0	.001
141.2 Inventory emergency supplies, equipment, drugs.	ALL	2	30.9	2	48.9	2	31.5	2	11.5	+17%	+37%	+20%	2.83	2.0	.001
148.0 Take inventory of unit supplies:															
148.5 Drugs.	NO JDGMT	1	31.9	1	60.6	2.5	30.8	5	3.1	+30%	+58%	+28%	2.33	1.0	.001
148.4 Dressings, tape.	NO JDGMT	2	27.1	2	35.0	1	32.3	2	13.7	+3%	+21%	+18%	2.0	2.25	.001
148.3 Disposable and non-disposable equipment.	NO JDGMT	3	23.6	3	30.7	2.5	30.8	3	9.2	0	+22%	+22%	2.0	2.25	.001
148.1 Linen.	NO JDGMT	4	18.3	4	21.2	4	16.9	1	16.8	+4%	+4%	0	2.0	2.25	n.s.
148.2 Stationery supplies.	NO JDGMT	5	11.6	5	19.0	5	9.2	4	6.1	+10%	+13%	+3%	2.0	2.25	.01
149.0 Direct personnel and activities of nursing unit:															
149.4 Assist personnel in giving nursing care.	RN	1	59.5	1	79.6	1	65.4	1	32.8	+15%	+47%	+32%	3.5	1.0	.001
149.1 Assign patients and personnel to nursing teams.	RN	2	22.4	2	52.6	2	10.8	2	2.3	+42%	+51%	+9%	3.0	3.0	.001
149.3 Supervise and evaluate performance of unit personnel.	RN	3	19.6	3	47.4	4	8.5	3.5	1.5	+38%	+45%	+7%	3.33	2.0	.001
149.2 Assign unit tasks to teams.	RN	4	19.1	4	44.5	3	10.0	3.5	1.5	+35%	+43%	+8%	2.83	4.0	.001
150.0 Direct personnel and activities of nursing team:															
150.5 Assist team members in giving nursing care.	ALL	1	53.5	1	67.9	1	60.8	1	31.3	+7%	+37%	+30%	2.83	5.0	.001

*Appropriateness of task to category of personnel as determined by the National Advisory Committee.
**Level of significance for Chi-square computed on 2x3 tables comparing frequency of task performance by category of personnel.
n.s. indicates p value greater than .05.

Table 19-A. (Continued)

APPROPRIATE LEVEL, FREQUENCY OF TASK PERFORMANCE BY CATEGORY OF PERSONNEL, PERCENTAGE DIFFERENCE IN FREQUENCY OF TASK PERFORMANCE BETWEEN CATEGORIES OF PERSONNEL AND CRITICALITY WITHIN THE FUNCTIONAL AREA OF ADMINISTRATION, COORDINATION, HOUSEKEEPING:

F-1. Administration and Coordination (Sub-tasks)

Task	Level*	Frequency (Percent of personnel saying task is performed "daily," or "almost daily," or "several times a week.")								Percent Difference			Criticality		p**
		All Personnel (N=398)		Staff Nurse (N=137)		LVN/LPN (N=130)		Nurses Aide (N=131)		RN Versus		LVN Versus			
		Rank	Percent	Rank	Percent	Rank	Percent	Rank	Percent	LVN/LPN	Aide	Aide	Score	Rank	
150.1 Assign patient to team members.	RN	2	23.1	2.33	52.6	2.5	13.1	3	2.3	+40%	+51%	+11%	3.16	2.0	.001
150.2 Assign unit tasks to team members.	RN	3	22.9	2.33	52.6	2.5	13.1	4.5	1.5	+40%	+51%	+11%	3.0	3.5	.001
150.3 Supervise and evaluate performance of team members.	RN	4	22.4	2.33	52.6	4	11.5	4.5	1.5	+41%	+51%	+10%	3.66	1.0	.001
150.4 Conduct nursing care conferences.	RN	5	10.6	5	21.2	5	6.9	2	3.1	+14%	+18%	+4%	3.0	3.5	.001
152.0 Plan and direct patient activities:															
152.1 Schedule activities, e.g., physical therapy.	NO JDGMT	1	9.8	1	20.4	2	4.6	2	3.8	+15%	+16%	+1%	2.33	2.0	.001
152.2 Supervise patient participation in activities, e.g., dances, games.	RN	2	6.0	2	5.1	1	7.7	1	5.3	-3%	0	+3%	2.5	1.0	n.s.
153.0 Obtain services of or refer patient to other health team members:															
153.2 Initiate (make telephone calls or write requests) service or referral.	RN	1	12.1	1	16.1	1	16.2	1	3.8	0	+12%	+12%	2.5	1.5	.01
153.1 Make recommendations for service or referral.	ALL	2	6.0	2	13.1	2	4.6	2	2.3	+8%	+11%	+3%	2.5	1.5	.001

*Appropriateness of task to category of personnel as determined by the National Advisory Committee.

**Level of significance for Chi-square computed on 2x3 tables comparing frequency of task performance by category of personnel. n.s. indicates p value greater than .05.

demand upon the RN (and to a lesser, but probably increasing extent, on the LVN/LPN) to perform more and more in the areas of administration, coordination, record-keeping, instruction, etc., that has brought about the kind of division of labor apparent in this report. While by law and medical tradition, certain tasks (e.g., administration of intravenous fluids) remain exclusively the province of the more highly trained RN, a large number of tasks involving routine patient care and treatment fall to the LVN/LPN and Aide. As medical care in the hospital setting becomes even more sophisticated and requires even greater coordination and supervisory effort, it can be expected that further specialization will take place, including the upgrading of the skills of the less professionalized occupations. What this area suggests is not merely that the RN must receive instruction in the administrative aspects of her task, but that the skills of the less well-trained occupations must be sharpened in anticipation of the demands that are (or are likely to be) placed upon them.

2. Housekeeping Functions

Description of the Area

Thirteen tasks comprised the last nursing area of the task survey. They fit into two categories: (a) "Housekeeping, patients' unit" (#157.1-3, 166, 167); (b) "Housekeeping, general" (#158-165).

The first-ranked task in terms of frequency is #167, "Distribute supplies and equipment to patient's room" (51.3%, all personnel); the last-ranked task is #163, "Assemble surgical or obstetrical pack" (1.1%, all personnel). (See Table 20.) The range in frequency is 39.2 percent, ranking 12.5 out of 16. The mid-most task is #166, "Stock equipment and supplies" (27.6%, all personnel), eighth of 16 in terms of median task frequency. It may be noted that the range frequency for the RN is 35.8 percent (#167) to 5.8 percent (#157.3), compared with 60.8 percent (#157) to 14.6 percent (#157.3, 163) for the LVN/LPN and 61.8 percent (#159) to 10.7 percent (#163) for the Aide. Although the RN does participate in "housekeeping" activities, she does so on a relatively limited basis.

The highest criticality score assigned to a task in the sub-area was 3.13 ("average" criticality); the lowest was 1.33 ("flexible"). Task #160 ("Sterilize equipment and supplies") received the former score; Task #166 ("Care for flowers") received the latter. The median criticality score was 1.81 (close to "moderate" criticality), 15th of 16 overall. The median criticality score for tasks at or above the median of all distribution was 1.72; tasks at or below the median had a median criticality score of 1.82.

None of the tasks in this sub-area was judged by the Advisory Committee to be a nursing function. Nine of the 13 were significantly differentiated at the .01 level or less--displaying a pattern of more frequent performance by the LVN/LPN and Aide (#157.1-3, 158, 159, 162, 164, 167). The remaining tasks (#160, 161, 163, 165) showed no significant difference in frequency performance by category of personnel. While tasks in this area were deemed to fall outside the domain of nursing activities as seen by the Advisory Committee, they indicate that these are none the less part of the daily routine of personnel, particularly the LVN/LPN and Aide.

Table 20. APPROPRIATE LEVEL, FREQUENCY OF TASK PERFORMANCE BY CATEGORY OF PERSONNEL, PERCENTAGE DIFFERENCE IN FREQUENCY OF TASK PERFORMANCE BETWEEN CATEGORIES OF PERSONNEL AND CRITICALITY WITHIN THE FUNCTIONAL AREA OF ADMINISTRATION, COORDINATION, HOUSEKEEPING: F-2. Housekeeping Functions

Task	Level*	Frequency (Percent of personnel saying task is performed "daily," or "almost daily," or "several times a week.")								Percent Difference			Criticality		P**
		All Personnel (N=398)		Staff Nurse (N=137)		LVN/LPN (N=130)		Nurses Aide (N=131)		RN Versus LVN/LPN	RN Versus Aide	LVN Versus Aide	Score	Rank	
		Rank	Percent	Rank	Percent	Rank	Percent	Rank	Percent						
167. Distribute supplies and equipment to patient's room, e.g., linen, thermometers, dressings, foot boards.	NONE	1	51.3	1	35.8	1	60.8	2	58.0	-25%	-22%	+3%	1.83	5.125	.001
159. Clean equipment and utensils, glassware, e.g., suction machine, wash basins, water glasses, pitchers.	NONE	2	50.3	2	32.8	2	56.9	1	61.8	-24%	-29%	-5%	1.84	5.125	.001
158. Clean service areas on unit, e.g. service room, treatment room, utility room, kitchen.	NONE	3	45.2	3	26.3	3	53.8	3	56.5	-28%	-31%	-3%	1.83	5.125	.001
164. Obtain and deliver supplies and equipment, e.g., sheepskins, hot water bottles, suction machines, utensils.	NONE	4	35.2	5	24.1	4	40.0	4	42.0	-16%	-18%	-2%	1.83	5.125	.01
157.1 Clean patient's unit furniture.	NONE	5	27.9	6.5	14.6	5	37.7	7	32.1	-23%	-17%	+6%	1.83	5.125	.001
165. Stock equipment and supplies, e.g., utensils, paper goods, linen, disposable materials.	NONE	6	27.6	4	25.5	8	31.5	8	26.0	-6%	0	+6%	1.83	5.125	n.s.
166. Care for flowers, e.g., arrange and distribute.	NONE	7	25.9	11.5	9.5	6	33.8	5	35.1	-24%	-25%	-1%	1.33	13.0	.001
157.2 Clean patient's unit room.	NONE	8	23.9	8	11.7	9	27.7	6	32.8	-16%	-21%	-5%	1.83	5.125	.001
162. Assemble patient linen packs.	NONE	9	22.4	11.5	9.5	7	33.1	9	25.2	-23%	-15%	+8%	1.83	5.125	.001
160. Sterilize equipment and supplies in autoclave, e.g., surgical instruments, linen packs.	NONE	10	15.1	6.5	14.6	11	17.7	11	13.0	-3%	+2%	+5%	3.16	1.5	n.s.
161. Sterilize equipment by boiling water or placing in solutions e.g., surgical instruments.	NONE	11	13.6	10	10.2	10	18.5	12	12.2	-9%	-2%	+7%	3.16	1.5	n.s.

*Appropriateness of task to category of personnel as determined by the National Advisory Committee.
**Level of significance for Chi-square computed on 2x3 tables comparing frequency of task performance by category of personnel.
n.s. indicates p value greater than .05.

Table 20.
(Continued)

APPROPRIATE LEVEL, FREQUENCY OF TASK PERFORMANCE BY CATEGORY OF PERSONNEL, PERCENTAGE DIFFERENCE IN FREQUENCY OF TASK PERFORMANCE BETWEEN CATEGORIES OF PERSONNEL AND CRITICALITY WITHIN THE FUNCTIONAL AREA OF ADMINISTRATION, COORDINATION, HOUSEKEEPING:
F-2. Housekeeping Functions

Task	Level*	Frequency (Percent of personnel saying task is performed "daily," or "almost daily," or "several times a week.")								Percent Difference			Criticality		p**
		All Personnel (N=398)		Staff Nurse (N=137)		LVN/LPN (N=130)		Nurses Aide (N=131)		RN Versus		LVN Versus			
		Rank	Percent	Rank	Percent	Rank	Percent	Rank	Percent	LVN/LPN	Aide	Aide	Score	Rank	
157.3 Clean patient's unit bathroom.	NONE	12	13.3	13	5.8	12.5	14.6	10	19.8	-9%	-14%	-5%	2.0	4.0	.01
163. Assemble surgical or obstetrical packs, e.g., linen packs, instrument packs.	NONE	13	12.1	9	10.9	12.5	14.6	13	10.7	-4%	0	+4%	2.33	3.0	n.s.

*Appropriateness of task to category of personnel as determined by the National Advisory Committee.
**Level of significance for Chi-square computed on 2x3 tables comparing frequency of task performance by category of personnel.
n.s. indicates p value greater than .05.

General Remarks

Perhaps the only surprise to be found in this area is the extent to which the RN participates in these housekeeping activities, none of which are viewed as nursing functions. While not seen as nursing functions, and ranked quite low on the criticality scale, tasks such as these are nonetheless part of the maintenance of the hospital service as a functioning patient care unit. That nursing personnel participate may be seen as a failure in the organization of work activities assigned to ancillary employees; on the other hand, it reflects the fact that tasks that need doing get done, even though they may be the responsibility of others. Within proper limits, overlooking the boundaries of one's responsibilities in the service of the overall functioning of the unit evidences a certain dedication. The function of a well-conceived curriculum is to provide the necessary skills to perform a needed task competently; it should not also draw rigid boundaries which define certain tasks as "someone else's worry" unless such boundaries are necessary for patient protection, or seriously interfere with the performance of more critical tasks.

Table 20-A. APPROPRIATE LEVEL, FREQUENCY OF TASK PERFORMANCE BY CATEGORY OF PERSONNEL, PERCENTAGE DIFFERENCE IN FREQUENCY OF TASK PERFORMANCE BETWEEN CATEGORIES OF PERSONNEL AND CRITICALITY WITHIN THE FUNCTIONAL AREA OF ADMINISTRATION, COORDINATION, HOUSEKEEPING: F-2. Housekeeping Functions (Sub-tasks)

Task	Level*	Frequency (Percent of personnel saying task is performed "daily," or "almost daily," or "several times a week.")								Percent Difference			Criticality		p**
		All Personnel (N=398)		Staff Nurse (N=137)		LVN/LPN (N=130)		Nurses Aide (N=131)		RN Versus		LVN Versus			
		Rank	Percent	Rank	Percent	Rank	Percent	Rank	Percent	LVN/LPN	Aide	Aide	Score	Rank	
157.0 Clean patient's unit:															
157.1 Furniture.	NONE	1	27.9	1	14.6	1	37.7	2	32.1	-23%	-17%	+6%	1.83	2.5	.001
157.2 Room.	NONE	2	23.9	2	11.7	2	27.7	1	32.8	-16%	-21%	-5%	1.83	2.5	.001
157.3 Bathroom.	NONE	3	13.3	3	5.8	3	14.6	3	19.8	-9%	-14%	-5%	2.0	1.0	.01

*Appropriateness of task to category of personnel as determined by the National Advisory Committee.
**Level of significance for Chi-square computed on 2x3 tables comparing frequency of task performance by category of personnel.
n.s. indicates p value greater than .05.

Table 21.

RANGE OF FREQUENCY OF PERFORMANCE AND RANGE OF CRITICALITY SCORES
RANK-ORDERED BY NURSING AREA

Nursing Area	Range of Frequency of Performance	Rank
B-1. Patient Protection	85.0%	(1)
B-4. Patient Need for Movement	84.6%	(2)
D-4. Diagnostic Activities	80.4%	(3)
C-2. Patient Need for Elimination	75.4%	(4)
C-1. Patient Need for Food and Fluids	73.3%	(5)
B-2. Personal Hygiene and General Comfort	72.6%	(6)
E-2. Oral and Written Communication	69.0%	(7)
D-1. Treatments and Procedures	61.6%	(8)
C-3. Need for Oxygen Transport and Exchange	60.3%	(9)
F-1. Administration and Coordination	57.0%	(10)
A-1. Diversional Therapeutic and Assistance Activities	47.7%	(11)
D-2. Application of Therapeutic Agents	39.2%	(12.5)
F-2. Housekeeping Functions	39.2%	(12.5)
E-1. Observation, Analysis, Interpretation	36.4%	(14)
D-3. Medications	31.9%	(15)
B-3. Religious and Spiritual Care	10.0%	(16)

Nursing Area	Range of Criticality Scores	Rank
C-1. Patient Need for Food and Fluids	3.67	(1)
D-1. Treatments and Procedures	2.67	(2.5)
F-1. Administration and Coordination	2.67	(2.5)
B-1. Patient Protection	2.34	(4)
B-2. Personal Hygiene and General Comfort	2.33	(5)
D-4. Diagnostic Activities	2.17	(6.5)
E-2. Oral and Written Communication	2.17	(6.5)
A-1. Diversional Therapeutic and Assistance Activities	1.84	(8)
E-1. Observation, Analysis, Interpretation	1.83	(9.5)
F-2. Housekeeping Functions	1.83	(9.5)
B-3. Religious and Spiritual Care	1.67	(11.5)
C-3. Need for Oxygen Transport and Exchange	1.67	(11.5)
B-4. Patient Need for Movement	1.17	(13.5)
D-2. Application of Therapeutic Agents	1.17	(13.5)
C-2. Patient Need for Elimination	1.0	(15)
D-3. Medications	0.67	(16)

Table 22.

FREQUENCY OF MID-MOST TASK AND MEDIAN CRITICALITY SCORE
RANK-ORDERED BY NURSING AREA

Nursing Area	Frequency of Mid-Most Task	Rank
E-1. Observation, Analysis, Interpretation	81.3%	(1)
C-2. Patient Need for Elimination	69.3%	(2)
E-2. Oral and Written Communication	45.6%	(3)
B-1. Patient Protection	43.7%	(4)
C-1. Patient Need for Food and Fluids	42.9%	(5)
D-3. Medications	36.1%	(6)
B-2. Personal Hygiene and General Comfort	32.2%	(7)
F-2. Housekeeping Functions	27.6%	(8)
B-4. Patient Need for Movement	25.1%	(9)
F-1. Administration and Coordination	23.1%	(10)
A-1. Diversional Therapeutic and Assistance Activities	21.9%	(11)
D-4. Diagnostic Activities	18.1%	(12)
D-1. Treatments and Procedures	16.1%	(13)
D-2. Application of Therapeutic Agents	15.2%	(14)
C-3. Need for Oxygen Transport	9.4%	(15)
B-3. Religious and Spiritual Care	5.0%	(16)

Nursing Area	Median Criticality Score	Rank
D-3. Medication	4.21	(1)
C-3. Patient Need for Oxygen Transport and Exchange	3.71	(2)
B-1. Patient Protection	3.65	(3)
D-2. Application of Therapeutic Agents	3.63	(4)
B-4. Patient Need for Movement	3.56	(5)
E-1. Observation, Analysis, Interpretation	3.40	(6)
D-1. Treatments and Procedures	3.16	(7)
D-4. Diagnostic Activities	3.06	(8)
E-2. Oral and Written Communication	2.86	(9)
C-1. Patient Need for Food and Fluids	2.84	(10.5)
C-2. Patient Need for Elimination	2.84	(10.5)
B-3. Religious and Spiritual Care	2.68	(12.5)
F-1. Administration and Coordination	2.68	(12.5)
B-2. Personal Hygiene and General Comfort	2.04	(14)
F-2. Housekeeping Functions	1.81	(15)
A-1. Diversional Therapeutic and Assistance Activities	1.38	(16)

V. CONCLUDING REMARKS

A. Non-Nursing Functions

A number of tasks included in the task survey are considered by the Advisory Committee not to be the proper function of nursing personnel. Yet, in many instances, nurses perform these functions, often with relatively high frequency. Areas A and F-2 illustrate this situation. In the case of Area A, these non-nursing functions appear to provide for contact between the patient and the world outside the hospital and for his entertainment during his stay. In Area F-2, it was seen that the non-nursing functions involved routine housekeeping chores. In both cases, an argument can be made for viewing such tasks as a normal (and useful) part of the nursing day.

Two issues must be addressed, however. First, does performance of such tasks interfere with discharging other, more important duties? Do personnel themselves view these activities as appropriate? It was argued, for example, that performance of some housekeeping duties (presumably the duty of non-nursing personnel) could reflect a commitment on the part of nursing personnel to keeping the organization functioning smoothly. Is this the case? Obviously, more information is required.

The role of pre-service and in-service curricula in this matter might be, as suggested earlier, one of orientation to the work place (i.e., these are some of the things nurses of all levels are called upon to do from time to time) and perspective (i.e., proper priorities must be applied in deciding when and under what conditions such activities are to be performed). With regard to the issue of the nurses' view of these activities, the perspective offered by curricular materials might stress that the contribution of the nurse (whatever her skill level) to patient well-being and the efficient functioning of her work unit can often extend beyond the boundaries of her formally defined role, and such extension may, under many circumstances, be quite beneficial if it does not involve her in activities beyond her competence or interfere seriously with her normal duties.

B. The Nurses' Aide

While it is the case that the Nurses' Aide is largely involved in the performance of relatively unskilled activities, in some instances she participates in activities viewed by the Advisory Committee as appropriate to the higher skilled LVN/LPN and RN. Although the extent of her participation is much less than the other two occupations, it is often is substantial (of the order of one-quarter to one-third "Frequent" performance of a given "specialized" task).

There are two ways to view this state of affairs. On the one hand, such participation can be seen as a departure from appropriate standards of competence vis-a-vis particular task performance. On the other, her performance of tasks beyond the formal boundaries of her training may reflect an emergent re-definition within hospitals of the potential of the Nurses' Aide.

Given that the Aide seldom, if ever, is involved in the highly critical tasks within the hospital, and adopting the assumption that the Aide's performance is subject to supervision by more extensively trained nursing personnel, the second outlook seems more realistic, particularly in terms of curricular development. Further, a certain upgrading of the Aide's skill and responsibility would seem a likely consequence of the increasing complexity of hospital care, that is, the advent of more specialized therapeutic procedures and the inevitable increase of administrative and supervisory responsibilities tend to draw the more highly educated and specialized occupations away from full participation in activities which formerly occupied much of their work day, leaving a vacuum to be filled.

In order to assess just what upgrading of skills would be both necessary and useful, certain questions need to be posed. Is the participation of the Aide in tasks deemed appropriate to the RN and/or LVN/LPN by the Advisory Committee actually outside the scope of her responsibilities as defined by the hospital? The anomaly of her participation may be a function of a gap between "theory" and "practice," i.e., a failure of the concept of proper professional boundaries to reflect actual definitions of the responsibilities of the three nursing occupations in the hospital. Should this be the case, and no evidence of serious problems occasioned by the extension of the Aide's responsibilities is apparent, a clear implication exists for the formulation of curricula for the Aide.

There are other factors to be considered. Is the entry of the Aide into task areas thought to be the province of her more highly trained sisters a function of the type of hospital facility in which she is employed? That is, does it make a difference in what the Nurses' Aide does, that she is working in an acute voluntary hospital, acute proprietary hospital, or a nursing home (attached or unattached)? It is conceivable that different types of facilities face different problems in the allocation of nursing personnel in relation to the work to be done.

An additional structural feature of the hospital may be an important consideration: size. What is the pattern of utilization of the Aide in the small facility (under 100 beds) as opposed to the large facility (over 200 beds)? The staffing problems may be quite different, resulting in distinctive patterns of utilization of personnel according to hospital size.

It is possible that experience plays a role in the utilization of the Aide for tasks thought to be the function of the LVN/LPN or RN. To the extent that length of employment (both in the particular facility and overall) proves to be related to utilization of the Aide, it may be the case that on-the-job experience supplements and extends the Aide's skills such that she is, in the eyes of her superiors, capable of performing beyond the prescription of her role.

If size or type of facility does make a difference, it could then be possible to define curricula in such a way as to provide training for the Aide adapted to the needs of her place of employment. If, in fact, experience tends to account for the participation of the Aide in the duties of the LVN/LPN and RN, formal recognition of this state of affairs might be given in in-service programs which could build upon such experience with explicit and focused

instruction. Further analysis of the task survey data along these lines is clearly called for.

C. Differentiation of Nursing Functions Appropriate to All Personnel

One of the major patterns to emerge from this preliminary analysis is the tendency of many tasks deemed the appropriate function of all nursing occupations by the Advisory Committee to be differentiated in the direction of more frequent performance by the LVN/LPN and/or Aide. For those tasks seen as the responsibility of the RN or the RN and LVN/LPN, a similar but less consistent pattern was noted.

An inference that can be drawn from these findings is that in the judgment of authoritative personnel in the hospitals surveyed, it was seen as appropriate (if not necessary) that the responsibility for many routine activities be placed on the LVN/LPN and Aide. This division of labor perhaps emerged from the on-going adjustment of task responsibility in response to medico-technological change and increasing administrative demands. An obvious consequence of such adjustments is the freeing of the RN's time for other duties, in particular, for the performance of more specialized and critical tasks.

These patterns are consistent with the pattern of the extension of responsibility for the Aide, discussed above. The implications of these patterns also reinforce the remarks on the situation of the Aide in that they suggest increasing specialization of the RN (both in terms of nursing functions and administration-record-keeping), with the consequent need for the less trained occupations to frequently perform general nursing duties and step into tasks of medium criticality. (These suggestions must be tempered by the fact that the attribution of change in the division of labor is speculative, in the absence of longitudinal data on task performance.)

The preceding three sections have dealt with certain general implications of the preliminary analysis presented in this report. The balance of this chapter will be concerned with recommendations for further analysis, and with spelling out certain problems which must be addressed in order to arrive at firmer conclusions regarding the implications of this task survey for curricular development.

D. The Frequency Criterion

It is clear that the frequency of task performance is a central issue in assessing the need to include training for that task in a curriculum. What is less clear is how frequency is to be evaluated. In this report, frequency has been viewed relative to the range of frequency of performance within a given area and with respect to all personnel and the individual occupations. In this way, tasks could be ranked within those areas, providing one element of a judgment on curricular relevance. Another procedure was to consider the criticality dimension, yet another, the division of labor.

With regard to the division of labor, or differentiation (as it was called in this report), statistical significance was employed as one criterion for deciding whether a particular task was differentiated. In addition, a rule-of-thumb estimate of importance was utilized to gauge the implications of differences in frequency of performance across the three occupations.

No particular problem is encountered for those tasks revealing dramatic differences. However, many patterns were observed which were statistically significant but displayed relatively small percentage differences.

What is needed is a systematic way to interpret the import of percentage differences in frequency of performance between the three personnel categories. The procedure adopted in this report represents a first approximation.

For further analysis, the following procedures might prove useful. First, tasks might be grouped in terms of criticality score rather than nursing area. What this will accomplish is a more homogeneous grouping, in terms of which frequency of performance can be assessed relative to tasks of roughly equal importance. On the assumption that criticality is another major criterion for curriculum building, this strategy will permit the use of both criteria conjointly in a more meaningful way. This is particularly important, given the observation that criticality tends to vary inversely with frequency.

A second procedure, which could complement the first, is a re-grouping of tasks by an alternative classification scheme. The scheme employed in this report was the format in which the task survey was mounted. Tasks could be reclassified in a number of different ways, e.g., specialized therapeutic procedures versus general patient care, information input (i.e., diagnostic procedures) versus information output (instructions to the patient, to personnel, concerning patient treatment), etc. It would be premature at this point to fully specify such a scheme, but the rationale may be stated. The characteristics of task performance and of the task itself may be less tied to substantive area than to such properties as focused treatment or routine care. For example, the range of frequency of performance, or criticality, or the character of the division of labor may vary more systematically with such features than with the present classification. If this is the case, assessment of frequency, criticality and other factors may become more meaningful by virtue of being made relative to particular types of tasks which cross over substantive areas. It would avoid comparing, in terms of frequency, tasks such as emptying drainage bottles and bags and inserting urinary catheters, both of which occur within the same area. In short, the principle is one of comparison within a group composed of similar tasks in order to decide priorities of training <u>for that category of activities</u>. The issue raised here is whether the present classification adequately satisfies this principle. This issue can be addressed empirically, i.e., by exploring alternative classifications, and decided on the basis of the kind of information yielded.

E. <u>The Relationship of Frequency, Criticality and Differentiation</u>

The general recommendations set forth above require further evidence before they can be accepted and specified further, or, of course, discarded. Such evidence would, in part, take the form of specifying more precisely the relationship between frequency of performance, differentiation, and criticality. The normative differentiation provided by the Advisory Committee proved discrepant in a large number of cases, raising the issue of how differentiation is to be assessed. It has been suggested that the actual distribution of performance be considered as a criterion of appropriate differentiation, subject to assessment of the problems that might result from that distribution relative to adequate nursing care. How might analysis proceed on this issue?

The general impression gained from the present analysis is that criticality varies inversely with frequency. The pattern appears to be that high frequency, low criticality tasks are differentiated toward performance by the LVN/LPN and Aide; low frequency, high criticality tasks tend to be differentiated toward performance by the higher skilled categories (RN or RN and LVN/LPN jointly). It may be the case that the relationship between differentiation and criticality is curvilinear or U-shaped. That is, differentiation may occur most frequently at the extremes of the criticality distribution, and fails to occur, or occurs irregularly, at the middle (a zone of "indifference"). Further, the direction of the differentiation may be a function of criticality, i.e., tending toward the lower skill categories at the low end of the criticality distribution, and toward the higher skill levels at the high end.

If criticality is systematically related to differentiation (in the way suggested above, or in some other way), it may be assumed that criticality scores reflect factors perceived by hospital personnel responsible for allocating duties among the three nursing occupations. It is less important that the Advisory Committee judgments are often discrepant vis-a-vis actual practice, than that practice in the hospital associates skill level with the criticality of particular tasks.

It is useful at this point to recall the discussion above of alternative classification schemes for ordering nursing tasks. One proposal for regrouping tasks involved level of criticality. Assuming that criticality is tied to skill, a series of grouped tasks ordered by level of criticality would provide one procedure for establishing priorities of curricular inclusion, specified as to target groups, e.g., RN, or LVN/LPN, or Aide, or some combination of these occupations. Within each group (e.g., Highly Critical, Above Average, etc.) frequency may be used to further refine priorities. It may be suggested in this regard that priorities within each level of criticality be assigned inversely as to frequency. If a task is highly critical, yet infrequent in occurrence, then such a task may require more emphasis than more frequently occurring duties, since there is less opportunity to practice and improve upon performance. If the curvilinear relationship is found, this means that tasks in the mid-range of the criticality scale are likely to be shared by all nursing personnel, thus defining a common core for all training programs (to the extent that such tasks require explicit instruction).

F. Background and Structural Variables

This chapter has already touched upon the need to examine certain background and structural variables in order to develop useful guidelines for formulating curricula. Facility type and size have been mentioned in the case of the Aide, but all three occupations should be inspected to see if there is any difference in the pattern of their performance in terms of these factors. A similar case can be made for education and experience, e.g., is there a difference in performance between two-year RNs and graduates of four-year university programs in nursing? What effect does job experience have on the types of tasks performed by the nursing occupations? Answers to these questions may provide valuable information for constructing focused pre-service and in-service programs tailored to needs of particular facilities and particular kinds of personnel.

G. Other Dimensions of Analysis

This report has not examined the dimensions of perceived difficulty and level of supervision. Obviously, both are relevant to many of the issues raised in this report. For example, when Aides perform tasks thought to be the duty of the RN or LVN/LPN, do they report greater supervision than for more routine tasks? Is perceived difficulty related to the judgment of criticality, or to differentiation? If a task is critical, but relatively easy to perform, does this relate to the pattern of frequent performance by category of personnel? Is perceived difficulty a better predictor of differentiation than criticality, i.e., does it more closely approximate the properties of tasks considered by hospital authorities in allocating responsibility? Perhaps perceived difficulty is a better criterion for inclusion in a curriculum than criticality, or, possibly, some index of the relationship between criticality and perceived difficulty may prove valuable.

The Human Interaction, Psychomotor Coordination, and Cognitive Level scales provide additional dimensions for task analysis. One obvious question to be posed is whether or not task performance by one or another nursing occupation is related to these variables. Probably of greater importance is the use of these scales to specify the performance components of the tasks themselves, i.e., the skills required to enact them competently. Such specification should be of great value for curricular design.

Resolution of these and other questions awaits further analysis. It must be stressed that the remarks presented in this report represent only an initial assessment of one segment of the available data. The results of the analysis thus far are merely suggestive and necessarily incomplete. By being suggestive, however, they prepare the way to a more exhaustive and definitive statement of findings relevant to the development of creative curricula tailored to the needs of the nursing professional and her employer.

Appendix A

R O S T E R

NATIONAL TECHNICAL ADVISORY COMMITTEE FOR THE NURSING OCCUPATIONS

Miss Georgeen H. DeChow, Chairman
Director, Department of Nursing, Manatee Junior College, Brandenton, Florida

Dr. Hazle W. Blakeney, Chairman
Department of Nursing, Essex Community College, Newark, New Jersey

* Miss Eleanor Carlson, Head
Department of Nursing, Morton Junior College, Cicero, Illinois

Miss Shirley Conklin, Coordinator
Registered Nursing Program, College of Marin, Kentfield, California

* Mrs. Floretta E. Cunegin, Coordinator
Nursing Program, Oakland Community College, Union Lake, Michigan

Dr. Betty L. Forest, Chairman
Department of Nursing, Quinsigamond Community College, Worcester, Massachusetts

Mr. Gerald L. Griffin, Director
Department of Associate Degree Programs, National League for Nursing, New York, New York

Mr. William F. Hartnett, Assistant Administrator for Nursing Services, Riverside Methodist Hospital, Columbus, Ohio

Mrs. Mildred Holloway, Chairman
Department of Nursing, Pierce College, Woodland Hills, California

Mrs. Crystal Lange, Associate Professor
Department of Nursing, Delta College, University Center, Michigan

* Mrs. Judy Ory, Associate Professor
California State College, Los Angeles, California

* Mrs. Sharon Reeder, Assistant Professor
University of California, Los Angeles, California

Mrs. Gerry White, Director
Nursing Education, Dallas County Junior College District, Dallas, Texas

* New member

APPENDIX B

LIST OF HEALTH CARE FACILITIES SELECTED FOR NATIONAL SURVEY

BIRMINGHAM

200 Beds or More	Baroness Erlanger Hospital	Chattanooga, Tennessee
	Baptist Medical Center	Birmingham, Alabama
100-199 Beds	Jeff Anderson Memorial Hosp.	Meridian, Mississippi
	St. Judes Catholic Hospital	Montgomery, Alabama
Under 100 Beds	Sam Howell Memorial Hospital	Cartersville, Georgia
	Athens-Limestone Hospital	Athens, Alabama
Extended Care Fac.	Plantation Manor	McCalla, Alabama
	St. Lukes Nursing Home	Birmingham, Alabama

BOSTON

200 Beds or More	Peter Bent Brigham Hospital	Boston, Massachusetts
	Memorial Hospital	Worcester, Massachusetts
100-199 Beds	Faulkner Hospital	Boston, Massachusetts
	Thayer Hospital	Waterville, Maine
Under 100 Beds	Mary Lane Hospital	Ware, Massachusetts
	Falmouth Hospital	Falmouth, Massachusetts
Extended Care Fac.	Hebrew Rehab. Center for Aged	Boston, Massachusetts
	Cambridge Nursing Home	Cambridge, Massachusetts

CHICAGO

200 Beds or More	Chicago Wesley Memorial Hosp.	Chicago, Illinois
	Memorial Hospital	Kenosha, Wisconsin
100-199 Beds	Delnor Hospital	St. Charles, Illinois
	Beloit Memorial Hospital	Beloit, Wisconsin
Under 100 Beds	DeKalb Public Hospital	DeKalb, Illinois
	Bethany Brethren Hospital	Chicago, Illinois
Extended Care Fac.	Hearthside Nursing Home	Chicago, Illinois
	Fox River Rehab. Center	Chicago, Illinois

DENVER

200 Beds or More	St. Marys Hospital	Grand Junction, Colorado
	St. Lukes Hospital	Denver, Colorado
100-199 Beds	Memorial Hospital of Laramie County	Cheyenne, Wyoming
	Poudre Valley Memorial Hosp.	Fort Collins, Colorado
Under 100 Beds	Alamosa County Hospital	Alamosa, Colorado
	Longmont Community Hospital	Longmont, Colorado
Extended Care Fac.	Ivy Manor Nursing Home	Denver, Colorado
	Eventide Nursing Home	Longmont, Colorado

LOS ANGELES

200 Beds or More	Kaiser Foundation Hospital	Panorama City, Calif.
	Santa Monica Hospital	Santa Monica, Calif.
100-199 Beds	Moringside Hospital	Los Angeles, California
	West Valley Community Hosp.	Encino, California
Under 100 Beds	Community Hospital of Gardena	Gardena, California
	Garden Park General Hosp.	Anaheim, California
Extended Care Fac.	Kaiser Extended Care Fac.	Panorama City, Calif.
	Culver City Convalescent Hospital	Los Angeles, California

SEATTLE

200 Beds or More	St. Francis Xavier Cabrini Hospital	Seattle, Washington
	Emmanuel Hospital	Portland, Oregon
100-199 Beds	St. Josephs Hospital	Aberdeen, Washington
	Vancouver Memorial Hospital	Vancouver, Washington
Under 100 Beds	Tri-State Memorial Hospital	Clarkston, Washington
	West Seattle General Hosp.	Seattle, Washington
Extended Care Fac.	Mt. Baker Convalescent Home	Seattle, Washington
	L. C. Foss Sunset House	Seattle, Washington

APPENDIX C

TO: Survey Administrators

FROM: Mary E. Jensen, Associate Director for Nursing,
Allied Health Professions Projects

Instructions for Administering Questionnaire on Nursing Occupations

Large numbers of nursing personnel limit the feasibility of administering the questionnaire to all registered nurses, licensed practical/vocational nurses, and aides/orderlies in the selected institutions. Therefore, we are asking you to administer it to personnel according to the size of the institution.

Size	Total Personnel	R.N.	L.P.N./L.V.N.	Aide/Orderly
fewer than 99	9	3	3	3
100-199	12	4	4	4
200 and up	15	5	5	5
Extended Care Facilities	9	3	3	3

In the institutions with 200 or more beds, please try to select personnel from the following nursing units. When possible, in the 100-199 bed institutions please try to secure a similar representation of personnel.

Service	R.N.	L.P.N./L.V.N.	Aide/Orderly
Medical-Surgical	2	2	2
Pediatrics	1	1	1
Obstetrics	1	1	1
Psychiatry/Mental Health	1	1	1

It is recognized that in extended care facilities and institutions with fewer than 100 beds, it may be impossible to administer the questionnaire to an equal number of R.N.'s, L.P.N.'s/L.V.N.'s, and aides/orderlies. In such instances, please substitute an individual from the next level down, rather than decrease the total number of personnel.

MEJ:grk
7-17-69

INSTRUCTIONS FOR COMPLETING
SURVEY QUESTIONNAIRE

The questions to which you are asked to respond deal with your judgment in relation to the human interaction, critical tolerance, psychomotor coordination, and the cognitive level associated with each of the functions. Each question is accompanied by a scale and a definition of the scale to assist you in making these judgments.

Beginning with the Human Interaction Scale, place in the appropriate column the number of the statement which best describes the level of ability required to perform the function. Follow the instructions given to complete the three remaining scales.

Please feel free to delete or add to the function list those items that you believe are not valid or that may have been overlooked. Your response and our discussion of this survey at our September meeting will determine the desirability and necessity of administering the instrument to selected nursing educators and administrators.

Return this instrument together with the task analysis survey. Your immediate response is requested in order that we may analyze the data in time for our meeting, September 25-26.

Your whole-hearted cooperation is sincerely appreciated. It is a further indication of the notable contributions you have made to the Project.

MEJ:grk
9-4-69

University of California, Los Angeles
Allied Health Professions Projects

TASK ANALYSIS SURVEY
BACKGROUND INFORMATION SHEET

I.D. Number_____

Please complete this Information sheet now and return it to the survey administrator. The answers to these questions are of importance as we try to evaluate responses from a large number of people across the United States where educational and licensure requirements for specific tasks may be very different.

Remember, this is a confidential document, it is identified by number only, and will not be attached to your name.

1. RESPONDENT:

   1.1 Position Title_____

   1.2 Area of Patient Care or Hospital Services, i.e. Medical-Surgical, Psychiatric, Medical Records, etc. Please specify:

   _____

   1.3 Length of Time in Position_____

   1.4 Age_____

   1.5 Sex (circle one) M F

   1.6 Marital Status (circle one)

   Married Single Widowed Divorced Separated

2. PREVIOUS EXPERIENCE:

	Type		Years
2.1	_____	2.2	_____
	_____		_____
	_____		_____

3. Highest Grade Completed Before Entering Educational or Training Program: (circle one)

   1 - 8, 9, 10, 11, 12, Some College Baccalaureate

   Post-Baccalaureate

4. Educational or Training Program Completed: (circle the number next to your answer)

   1 -- None

   2 -- On-Job Training: How Long? (circle one)

   2 wks. 1 mo. 2 mos. 3 mos. longer than 3 mos.

   3 -- Certificate or Diploma Program: (circle one)

   1 yr. 2 yr. 3 yrs. or more

   4 -- Associate Degree

   5 -- Baccalaureate Degree

   6 -- Post-Baccalaureate Degree

5. Certification, Licensure, Registration Held, i.e. C.D.A., A.R.T., O.T.R., R.N., L.V.N.

   Please specify: _____

6. Yearly Income Range: (circle one)

   1 -- Less than 2,000

   2 -- 2,000 - 3,999

   3 -- 4,000 - 6,999

   4 -- 7,000 - 9,999

   5 --10,000 or more

C O N F I D E N T I A L D O C U M E N T
FOR RESEARCH PURPOSES ONLY

KLG:ba
6-23-69

SAMPLE PAGE OF NURSING SURVEY QUESTIONNAIRE
(Text tables show complete list of questions)

Instructions:
Please read each task and place an "X" in the appropriate box opposite it to show your answer.

	FREQUENCY — How often do you do this task?					SUPERVISION — How much supervision do you get for this task?					DIFFICULTY — How difficult is this task?				
	Daily / Almost Daily	Several times a Week	Several times a Month	Several times a Year	Never / Almost Never	All the time	Most of the Time	Occasionally	Rarely	No Supervision	Routine procedure- No decisions	Several procedures- Minor decisions	Select most Suitable procedure	Establish and/or Modify procedure	Make complex decisions Little precedent
I. DIVERSIONAL THERAPEUTIC AND ASSISTANCE ACTIVITIES															
1. Read to patients.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
2. Assist and/or participate in recreational activities with patients, e.g. arts, crafts, sports, games, dances, walks.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
3. Obtain and deliver supplies for patients' entertainment or recreation, e.g. radio, TV, games.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
4. Assist and/or participate in occupational activities with patients, e.g. typing and clerical, leather work.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
5. Assist with individual and group therapy, e.g. relationships, play, ward meetings.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
6. Assist in writing letters, messages.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
7. Assist in placing telephone calls.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
8. Receive and deliver messages and/or mail to patients.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
9. Obtain and deliver items for patients' personal use, e.g. newspapers, magazines, books, etc.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
II. SAFETY AND COMFORT A. Patient Protection															
10. Count, sign for, and place patient's personal possessions in safe place.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
11. Use precautions in administering and handling potentially dangerous agents, e.g. drugs, radioactive materials.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5

UCLA, Div. of Voc. Educ., Nursing
07.03 00 00 00 TA 7-69

INSTRUCTIONS TO NTAC FOR
COMPLETING TASK ANALYSIS QUESTIONNAIRE

TO: Committee Members

The attached instructions accompanied the survey to a selected sample of nurses' aides, licensed vocational/practical nurses, and registered nurses in survey hospitals and extended care facilities throughout the country. Survey administrators were instructed to select personnel from all clinical services according to the bed capacity of the institution.

We would appreciate your completing the document to the best of your ability. Do not attempt to answer it as you believe an aide, LVN/LPN, or RN would. Answer it, rather, as it applies to the occupation in general. Modify the instructions as follows:

1. Frequency--how often is this task performed.
2. Difficulty--no modifications.
3. Supervision--how much supervision is given in the performance of the function

MEJ:grk
9-2-69

INSTRUCTIONS TO NTAC
FOR COMPLETING
SPECIAL SURVEY QUESTIONNAIRE

The questions to which you are asked to respond deal with your judgment in relation to the human interaction, critical tolerance, psychomotor coordination, and the cognitive level associated with each of the functions. Each question is accompanied by a scale and a definition of the scale to assist you in making these judgments.

Beginning with the Human Interaction Scale, place in the appropriate column the number of the statement which best describes the level of ability required to perform the function. Follow the instructions given to complete the three remaining scales.

Please feel free to delete or add to the function list those items that you believe are not valid or that may have been overlooked. Your response and our discussion of this survey at our September meeting will determine the desirability and necessity of administering the instrument to selected nursing educators and administrators.

Return this instrument together with the task analysis survey. Your immediate response is requested in order that we may analyze the data in time for our meeting, September 25-26.

Your whole-hearted cooperation is sincerely appreciated. It is a further indication of the notable contributions you have made to the Project.

HUMAN INTERACTION

This scale is used to assess the level of human interaction skills in which the performer deals with recipients or respondents to the service or activity of the performer.

1. No Human Interaction . . . . . Requires no human interaction with patients or personnel.
   Example: Test urine for sugar and acetone.

2. Routine Impersonal Interaction . . . . . Requires performer to exchange impersonal information, perform impersonal services.
   Example: Record intake and output.

3. Routine Personal Interaction . . . . . Requires performer to engage in personal interaction in performance of impersonal service.
   Example: Take patient to the bathroom.

4. Personal Interaction. . Requires performer to interact with recipients in personal manner to assess, instruct, persuade, or perform personal service.
   Example: Give bed bath.

5. Highly Personal Interaction . . . . . Requires performer to interact with recipients or respondents to bring about changes in behavior.
   Example: Instruct patient in learning how to irrigate colostomy.

MEJ/RK:grk
8-25-69

CRITICAL TOLERANCE

This scale is used to assess the level of tolerance which can be allowed in the performance of each task without a significant loss of time, materials, equipment, patient comfort, or safety.

1. Flexible . . . . . Relatively unimportant whether the task is done a certain way or not.
   Example: Read to patients.

2. Moderate Tolerance. . . . Is normally done within limited tolerance.
   Example: Put up side rails.

3. Average Tolerance. . . . Deviation from prescribed methods could result in minor delays or loss of resources.
   Example: Administer enema.

4. Above Average Tolerance. . . . Very little tolerance may be allowed without risk to worker, patient, or equipment.
   Example: Maintain isolation technique.

5. Highly Critical Tolerance. . . . Must be done within strict parameters to avoid irreversible loss of health or expensive equipment.
   Example: Administer intravenous medications.

PSYCHOMOTOR COORDINATION

This scale is designed to evaluate the difficulty of each task in terms of the level of manual skill required to perform the task well.

1. None . . . . . A task which requires no unique coordination.
   Example: Delivering mail to patients.

2. Gross. . . . . Some coordination is required but can normally be done well the first time.
   Example: Filling hot water bottle.

3. Moderate . . . . Requires a little practice to master the dexterity.
   Example: Applying sterile gloves.

4. Fine . . . . . Requires eye-hand coordination that comes only after considerable practice.
   Example: Inserting urinary catheter.

5. Highly Refined. . . . Requires a tactile sensitivity that is very difficult to achieve.
   Example: Mixing and withdrawing solutions for injection.

COGNITIVE LEVEL

This scale is to evaluate the depth of knowledge necessary to perform the task well.

1. Routine Procedure . . . Requires recognition of facts in performing simple procedures.
   Example: Giving a backrub.

2. Several Procedures with Minor Decisions . . . . . Requires interpretation and recall of information to perform a series of procedures to complete a task.
   Example: Making a bed.

3. Select Most Suitable Procedures. . . . . Requires the ability to solve new problems with a minimum of direction, based on past experience with similar situations.
   Example: Giving or assisting patient to take a bath.

4. Establish and/or Modify Procedures . . Requires analysis of a situation or problem and the formulation of the most suitable procedure for solution.
   Example: Identifying approaches and solutions to patient needs and problems.

5. Making Complex Decisions with Little Precedent. . . Requires the ability to develop new methods of performance.
   Example: Devising nursing care plan.